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 COLLEGE  
BUSINESS   
A D M I N I S T R A T I O N

\*

Class No.	332.4
Book No.	1187
Acc. No.	20764
Date	10 / 13 / 32

T H E S I S

AN INQUIRY INTO THE EFFECTS OF THE GOLD STANDARD  
UPON THE ECONOMIC DEVELOPMENT OF  
THE UNITED STATES

BY

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Submitted as a partial requirement for the degree of  
Master of Business Administration

College of Business Administration  
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Boston, Mass.

April 25, 1932.



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F O R W A R D

Among the important events which have marked the monetary history of the past generation has been the steady progress toward the gold standard in commercial countries, until to-day other systems have practically been superseded or abandoned in favor of some form of money based upon gold. The development of our money and of our existing monetary system has been the result of a long evolution extending from the cattle money of prehistoric times down to the perfected gold coin and check and deposit system of to-day. The progress of this evolution has followed the principle of marginal utility, which has been so successfully applied to the solution of economic problems, but was not until recently applied in detail to the subject of gold.

The chief justification I have for writing this thesis is that I firmly believe the economic development of the United States has centered around the gold standard more than any other single thing. Many problems which a generation ago appeared obscure have been solved by the efficiency of gold as a money standard. Probably the single greatest proof of gold as an economic developer is the fact that every leading commercial nation in the world is on a gold monetary basis.





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FINANCIAL CONDITION OF COUNTRY AT TIME OF  
SEVERANCE FROM ENGLAND

The colonies went into the Revolutionary War, many of them with paper already in circulation, all of them making issues for the expenses of military preparations. The Continental Congress, having no power to tax, and its members being accustomed to paper issues as the ordinary form of public finance, began to issue bills on the faith of the Continent, Franklin earnestly approving. The first issue for 300,000 Spanish dollars was redeemable in gold or silver at the end of three years. They were ordered in May and issued in August, 1775. Paper for nine million dollars was issued before any depreciation began. The issues of the separate colonies must have affected it, but the popular enthusiasm went for something.<sup>1</sup> Pelatiah Webster, almost alone as it seems, insisted on taxation, but a member of Congress indignantly asked if he was to help tax people when they could go to the printing-office and get a cartload of money. In 1776, when the depreciation began, Congress took harsh measures to punish those who forestalled or engrossed, these being the terms for speculators who bought for a rise.

During the summer of 1780 this wretched Continental currency fell into contempt. As Washington said, it took a wagon-load of money to buy a wagon-load of provisions.

1. W.G. Sumner, History of American Currency. pp. 43-44.







At the end of the year, 1778, the paper dollar was worth sixteen cents in the northern states and twelve cents in the south. Early in 1780 its value had fallen to two cents, and before the end of the year it took ten paper dollars to make a cent. In October, Indian corn sold for \$150. a bushel, butter was \$12. a pound, tea \$90, sugar \$10, beef \$8, coffee \$12, and a barrel of flour cost \$1575. Samuel Adams paid \$2000. for a hat and a suit of clothes. The money soon ceased to circulate, debts could not be collected, and there was a general prostration of credit.

Before the close of the year, 1780, the Continental currency had ceased to circulate. Attempts were subsequently made to have it funded or redeemed, but without success.<sup>1</sup> During the Revolutionary period metallic money remained in the confusion of the colonial period. Various foreign coins circulated side by side, as the English guinea, crown, and shilling; the French guinea, pistole, and crown; the Spanish pistole; and the johannes, half johannes, and moidre; and unequal values were given in different parts of the Union to coins of the same intrinsic worth, thus affording opportunity for clipping and fraudulent change. Various units of account were employed in different sections of the country, which tended to obscure a clear understanding of the economic condition of the several States.

1. D.R. Dewey, Financial History of the U.S. p. 101.



### 3.

The Articles of Confederation when they went into effect in 1781 did not contribute much to remove the complications, for, though Congress had power to regulate the alloy and value of coins, struck either by its authority or by that of the States, the right to coin money was still retained by the States.

1780-1784:- Pennsylvania Bank, Bank of North America, and Bank of New York. The Pennsylvania Bank, which was organized in Philadelphia, during the Revolutionary War, was founded for the purpose of facilitating the operations of the Government in transporting supplies for the Army. It began its useful work in 1780, and continued in existence until after the close of the war: finally closing its affairs toward the end of the year 1784. But the need was felt for a national bank which should not only aid the Government on a large scale by its money and credit, but should extend facilities to individuals, and thereby benefit the community as well as the State. Through the influence and exertion of Robert Morris, then Superintendent of Finance for the United States, the Bank of North America at Philadelphia, was organized with a capital of \$400,000. It was incorporated by Congress in December, 1781, and by the State of Pennsylvania a few months afterwards. Its success was immediate and complete. It not only rendered valuable and timely aid to the United States Government and to the State of Pennsylvania, but it greatly assisted in restoring confidence and credit to the commercial community, and afforded



facilities to private enterprises that were especially welcome. The success of the Bank of North America, and the advantages which the citizens of Philadelphia enjoyed from the facilities it offered them, naturally suggested the founding of a similar enterprise in the City of New York. The Bank of New York was accordingly founded in 1784.

1782-1792:- Establishment of the United States Mint. Several reports had been made on the subject of coinage, the first of which was by Robert Morris, January 15, 1782. The subject of coinage was exhaustively considered by Hamilton in a report submitted to Congress in May, 1791, in which he stood for a unit expressed in both gold and silver. For certain reasons, he held that it was not safe to abridge the quantity of circulating medium by annulling the use of silver. He recommended that the mint ratio between gold and silver be 1 to 15---a proportion corresponding to the bullion values at that time---and proposed that the monetary unit consist of  $29\frac{5}{4}$  grains of pure gold, or  $37\frac{1}{2}$  grains of pure silver, the amount of silver corresponding as nearly as could be determined with that of the Spanish dollar in actual circulation, each answering to a dollar in the money of account. In accordance with this plan, Hamilton recommended the coinage of ten dollar and one dollar gold pieces, one dollar and ten cent silver pieces, and one cent and one-half cent copper pieces. There is nothing whatever in





Hamilton's report which countenances silver monometallism; gold as well as silver was recognized as an actual standard of value at the time, and Hamilton's efforts were directed to determining a ratio between gold and silver which should bring uniformity out of disorder occasioned by the silver coinage then current. The Mint Act of April 2, 1792, substantially followed the suggestions of Hamilton, omitting, however, any provision for the coinage of a gold dollar. Because there was no distinct provision for the coinage of a gold dollar, it has been hastily concluded by advocates of silver coinage that the original unit of value was the silver dollar. The error has resulted from not observing that there are different kinds of units. The word unit as employed in the Mint Act refers to a unit of numbers, and not, as crudely interpreted, to a unit of value.<sup>1</sup> The act of 1792 has indeed been given greater prominence than it deserves, for the currency question at that time did not arouse much interest. There was more discussion in Congress over the expense of establishing and maintaining a mint than there was over the ratio or the choice of metals.

1790-1816:- First Bank of the United States. On the organization of the government of the United States, under its federal constitution, in 1789 and 1790, the lead in

1. D. R. Dewey, Financial History of the U. S. p. 103.





constructive statesmanship was taken, as is well known, by Alexander Hamilton. His plan included a financial institution to develop the natural resources, strengthen the public credit, aid the Treasury Department in its administration, and provide a secure and sound circulating medium for the people. On December 13, 1790, he sent into Congress a report concerning the subject of a national bank. The Republican party, then in the minority, opposed the measure as unconstitutional, on the ground that the power of creating banks or a corporate body had not been expressly delegated to Congress, and was therefore not possessed with it. Washington's cabinet was divided: Jefferson opposing the plan as not within the implied powers, because it was an expediency and not a paramount necessity. Later he used stronger language, and denounced the institution as one of the most hostile agencies existing against the principles and form of our Constitution.

1

There is the authority of Mr. Gallatin for saying that Jefferson died a decided enemy to our banking system generally, and especially to a bank of the United States. But Hamilton's views prevailed. Washington who in the weary years of war had seen the imperative necessity of some national organization of the finances, after mature deliberation approved the plan, and on February 25, 1791, the Bank of the United States was incorporated. The capital stock was limited to



twenty-five thousand shares of four hundred dollars each, or ten millions of dollars, payable one fourth in gold and silver, and three fourths in public utilities, bearing an interest of six and three per cent. The stock was immediately subscribed for, the government taking five thousand shares, two millions of dollars, under the right reserved in the charter. The subscription of the United States was paid in ten equal annual installments. A large proportion of the stock was held abroad, and the shares soon rose above par. Authority was given the bank to establish offices of discount and deposit within the United States. The chief bank was placed in Philadelphia and branches were established in eight cities, with capitals in proportion to their commercial importance.

In 1809 the stockholders of the Bank of the United States memorialized the government for a renewal of their charter, which would expire on March 4, 1811, and on March 9, 1809, Mr. Gallatin sent in a report in which he reviewed the operation of the bank from its organization. A table of all the dividends made by the bank showed that they had, on the average, been at the rate of eight and three eighths per cent a year, which proved that the bank had not in any considerable degree used the public deposits for the purpose of extending its discounts. From a general view of the debits and credits, as presented, it appeared that the affairs of the Bank of the United States, considered as a money in-



stitution, had been wisely and skillfully managed. The advantages derived by the government, Mr. Gallatin stated to be:

1. Safe-keeping of the public-moneys.
2. Transmission of the public-moneys.
3. Collection of the Revenue.
4. Loans.

The strongest objection to the renewal of the charter lay in the great portion of the bank stock held by foreigners. Not on account of any influence over the institution, since they had no vote; but because of the high rate of interest payable by America to foreign countries. Congress refused to prolong its existence and the institution was dissolved. Fortunately for the Country, it wound up its affairs with such deliberation and prudence as to allow of the interposition of other bank credits in lieu of those withdrawn, and thus prevented a serious shock to the interest of the community. In the twenty years of its existence from 1791 to 1811 its management was irreproachable. The immediate effect of the refusal of Congress to recharter the Bank of the United States was to bring the Treasury to the verge of bankruptcy. The interference of Parish, Girard, and Astor alone saved the credit of the government. Another immediate effect of the dissolution of the bank was the withdrawal from the country of the foreign capital invested in the bank,





more than seven millions of dollars. This amount was remitted, in the twelve months preceeding the war, in specie. Specie was at that time a product foreign to the United States, and by no means easy to obtain.

The notes of the Bank of the United States, payable on demand in gold or silver at the counters of the bank, or any of its branches, were, by its charter, receivable in all payments to the United States; but this quality was also stripped from them on March 19, 1812, by a repeal of the act according it. To these disturbances of the financial equilibrium of the country was added the necessary withdrawal of fifteen millions of bank credit and its transfer to other institutions. This gave an extraordinary impulse to the establishment of local banks. each eager for a share of the profits. The capital of the country, instead of being concentrated was dissipated. Between January 1, 1811, and 1815, one hundred and twenty new banks were chartered, and forty millions of dollars were added to the banking capital. To realize profits, the issues of paper were pushed to the extreme of possible circulation. Meanwhile New England kept aloof from the nation. The specie in the vaults of the banks of Massachusetts rose from \$1,706,000 on June 1, 1811 to \$7,326,000 on June 1, 1814. The suspension of the banks was precipitated by the capture of Washington. It began in Baltimore, which was threatened by the British, and was at once followed in Philadelphia and New York.





Before the end of September all the banks south and west of New England had suspended specie payment. The depression of the local currencies ranged from seven to twenty-five per cent. In November the Treasury Department found itself involved in the common disaster. The refusal of the banks, in which the public moneys were deposited, to pay their notes for the drafts upon them, in specie, deprived the government of its gold and silver; and their refusal, likewise, of credit and circulation to the issues of banks in other States, also deprived the government of the only means it possessed for transferring its funds in order to pay the dividends on the debt and discharge the treasury notes. On October 14, 1814, Alexander J. Dallas, Mr. Gallatin's old friend, who had been appointed Secretary of the Treasury on the sixth of the same month, in a report of a plan to support the public credit, proposed the incorporation of a national bank. A bill was passed by Congress, but returned to it by Madison with his veto on January 15, 1815. Mr. Dallas, again, as a last resort, insisted on a bank as the only means by which the currency of the country could be restored to a sound condition. In December, 1815, Dallas reported to a Committee, of which John C. Calhoun was chairman, appointed by the House of Representatives concerning the subject of a national currency, a plan for a national bank. On March 3, 1816, the second Bank of the United States was chartered by Congress.



The capital was thirty-five millions, of which the government held seven millions, in seventy-thousand shares of one hundred dollars each. Mr. Madison approved the bill. The Second National Bank of the United States was located at Philadelphia, and chartered for twenty years.

1817-1833:- Second Bank of the United States and the War Upon it. On the first of January, 1817, the bank opened for business, with the country on the brink of a great monetary crisis, but too late to prevent the crash which followed. The management of the bank during the first two years of its existence was far from satisfactory. It aggravated the troubles of the financial situation instead of relieving them. Specie payments were nominally resumed in 1817, but the insidious cancer of inflation had eaten its way into the arteries of business, and in the crisis of 1819 came another suspension that lasted for two years. It was only by a desperate effort that the bank finally weathered the storm brought on by its own mismanagement and that of the State Banks. After the recovery, a period of several years of prosperity followed, and the management of the bank was thoroughly organized and sound. From this time on until the great Bank War its affairs seem to have been conducted with a view to performing its duty to the government as well as to its individual stock-holders, and it rendered such aid to the public, directly and indirectly, as entitled it to the respect and fair treatment on the part of the servants of the people. But the bank controversy was not over.



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It was about to be revived, and to become a prominent issue in a period of our national politics more distinguished for the bitterness of its personal animosities than perhaps any other in our annals. As already said, the ten years following the revulsion of 1819-1825 were years of almost unbroken prosperity. In fact, scarcely any mention of the subject was made until President Jackson referred to it in his message of December, 1829. In this message he reopened the question of the constitutionality of the bank, but the Committee to which this portion of the message was referred in the House of Representatives made a report favorable to the institution. There seems no reason to doubt the honesty of Jackson's opinion that the charter of the bank was unconstitutional, and at first he probably had no feelings in the matter except that which sprang from his convictions on this point. Certain events, however, increased his hostility to the bank, and strengthened his resolution to destroy it.

The question of rechartering the bank was made an issue, in the presidential campaign of 1832, by Henry Clay. Its disinterested friends in both parties strongly dissuaded Biddle, (president of the bank) from allowing the question of recharter to be brought into the campaign. Clay's advisers tried to dissuade him. The bank, however, could not oppose the public man on whom it depended most,





and the party leaders deferred at last to their chief.

Jackson was never more dictatorial and obstinate than Clay was at this juncture. Pending the election, a bill to renew the charter of the bank was passed through both houses of Congress. The President promptly vetoed it. The national republican convention met at Baltimore December 12, 1831. It issued an address, in which the bank question was put forward. It declared that the President was pledged to the people to veto any bill that may be passed for rechartering the bank; and there was little doubt that the additional influence which he would acquire by reelection would be employed to carry through Congress the extraordinary substitute which he had repeatedly proposed. The appeal, therefore, was to defeat Jackson in order to save the bank. Such a challenge as that could have but one effect on Jackson. It called every faculty he possessed into activity to compass the destruction of the bank. Instead of retiring from the position he had taken, the moment there was a fight to be fought, he did what he did at New Orleans. He moved his lines up to the last point he could command on the side towards the enemy. The proceedings seemed to prove just what the anti-bank men had asserted; that the bank was a great monster, which aimed to control the elections and to set up and put down new Presidents.





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The campaign of 1832 was a struggle between the popularity of the bank and the popularity of Jackson. Jackson was overwhelmingly elected, and feeling convinced that his war upon the banks had received the approval of the people, he determined to remove the public deposits from its keeping on his own responsibility. With this view he removed, (in the spring of 1832) the Secretary of the Treasury who would not consent to remove the deposits, and appointed William J. Duane, of Pennsylvania, in his place. He proved to be of no more compliability than his predecessor. After many attempts to persuade him, the President announced to the Cabinet, his final decision, that the deposits must be removed.<sup>2</sup> The reasons given were that the law gave the Secretary, not Congress, control of the deposits, and that it was improper to leave them longer in a bank whose charter would so soon expire, that the Bank's funds had been largely used for political purposes, that its inability to pay all its depositors had been shown by its efforts to procure an extension of time from its creditors in Europe, and that its four government directors had been systematically kept from knowledge of its management. Secretary Duane refused either to remove the deposits or to resign his office, and pronounced the proposed removal unnecessary, unwise, vindictive, arbitrary and unjust.

1. W. G. Sumner, Andrew Jackson, Chapter 11.

2. A. Johnston, History of American Politics, Chap. 13.



He was at once removed from office, and Roger B. Taney, of Maryland, appointed in his place. The necessary orders for removal were given by Secretary Taney. It was not strictly a removal, for all previous deposits were left in the Bank, to be drawn upon until exhausted. It was rather a cessation. The deposits were afterwards made in various State banks, and the Bank of the United States was compelled to call in its loans. The commercial distress which followed in consequence probably strengthened the President in the end by giving a convincing proof of the Bank's power as an antagonist to the Government.



THE PREVISION OF PROGRESS

A new policy was adopted in the United States by the act of June 28, 1834. This act changed the ratio between gold and silver from 15 to 1 to 16 to 1.<sup>1</sup> This change was accomplished by lowering the weight of the gold eagle from 270 to 258 grains of standard gold. The weight of the silver dollar and the amount of silver which it contained were left unchanged, but the dollar was practically discarded by giving it a lower value at the mint in relation to gold than the value of the bullion which it contained. The mint was thus thrown open to the free coinage of both metals, and it has been contended by many American bimetallicists that the system of 1834 established bimetallicism in the United States. Upon this point, however, so intelligent and careful a bimetallicist as Walker declares:-  
 2. A fair trial of bimetallicism, under reasonably favorable conditions, could not possibly, in the nature of the case, have been conducted here. The people of this country, throughout the period under consideration, habitually used so small an amount of either or both of the precious metals, in comparison with other nations, and in comparison with the stock of these metals throughout the world, that a bimetallic law here instituted could not have afforded a fair trial of bimetallicism.

Walker further declares that: "The manner in which bimetallicism was put into operation here by the act of

1. Con. McLaughlin. Bimetallicism in the U. S. p. 73

2. International Bimetallicism, p. 112.





1834 was such as necessarily to bring about an early failure, even though the principle of bimetallism was admitted to be perfectly sound." He bases this statement partly upon the selection by Hamilton of a ratio which was different from that of France and was different from the market ratio. This ratio, as established by the act of April 2, 1792, was 15 to 1. Gold was undervalued with the result that little was brought to the mints and much exported. It had been the intention of Hamilton to establish the double standard, because he did not believe that the United States was rich enough to retain a gold currency. <sup>1</sup> The fall in the value of silver, however, caused it to be used in paying debts, and from 1792 to 1834 made it practically the standard of monetary transactions.

1874-1890:- Resumption of Specie Payment in the United States. The political consequences of the panic of 1873 were seen in the autumn of 1874 when the congressional elections, for the first time since 1860, went against the Republican party. Under the pressure of political necessity (inspired in part by the vigorous tone of Grant's veto, and by the positive demands of Bristow, who succeeded Richardson, as Secretary of the Treasury), a bill was enacted for the resumption of specie payments by the expiring Congress, January 14, 1876 while the Republicans still held power to rally to its



support sufficient votes for its passage. <sup>1</sup> The measure was loaded with a variety of provisions: 1. A system of free banking: 2. The retirement of green-backs equal to eighty per cent of the amount of new national bank-notes issued, until the greenback circulation should be reduced to \$300,000,000. after which no further reduction of the green-backs was to take place. It was argued that this check would prevent either expansion or contraction of the currency as nearly twenty per cent of the notes were already held as bank reserves: 3. The withdrawal of paper fractional currency and substitution of silver coin; 4. Removal of the charge for the renewal of gold: 5. Resumption of specie payments on January 1, 1879. For this purpose the treasury was authorized to use the surplus specie in the treasury, and, if necessary, to sell bonds of the classes authorized under the act of July 14, 1870, in order to obtain additional gold. The legal-tender quality of both green-backs and national bank-notes remained unchanged. The act remained practically inoperative so far as the proposition for immediate resumption was concerned. Secretary Bristow in 1875-1876 did not favor the policy of accumulating gold in a reserve, as he deprecated the loss of interest on the specie so withdrawn; and he feared the serious opposition of the financial world, particularly of Germany, which was at that time abandoning silver for gold monometallism.



When Hayes became president, March, 1877 John Sherman of Ohio was appointed secretary of the treasury. He had held an important part in framing the resumption act, and immediately upon taking office undertook more decided measures to carry it out. Sherman almost solely relied upon building up a gold reserve through the sale of bonds for coin. From Congress he realized that he would get no added support: rather there was danger that he would be prevented from doing anything at all, for in 1877 the inflationists were in control of both Houses of Congress, and again made a determined effort to repeal the resumption act. Such a measure was passed by the House of Representatives and failed in the Senate only through disagreement on details.

When it became necessary to resume specie payments by the coinage of metallic money, the Treasury Department decided to revise and codify the coinage laws. In the course of the codification, demonetization of the standard silver dollar, already accomplished in fact, in 1834, and confirmed in 1853, was legally recognized. The act of February 12, 1873, "revising and amending the laws relative to the mint, assay offices, and coinage of the United States," provided for certain coins, among which the standard dollar was not included, and then in a subsequent section provided: "That no coins, either of gold, silver, or minor coinage, shall hereafter be issued from the mint other than those of the denominations, standards, and weights set forth." Such silver dollars as were in existence, however, still retained their full legal-tender quality until the enactment of





the Revised Statutes in June, 1874, which contained the following provision:-

Section 3586. "The silver coins of the United States shall be a legal-tender at their nominal value for any amount not exceeding five dollars in any one payment."

It was this legislation of 1873 and 1874, in its relation to subsequent events which led to the charge that the silver dollar had been surreptitiously demonetized and that this action by Congress constituted the "Crime of 1873."

It was after the fall in the gold value of silver had changed seriously the relations between the two metals that agitation began for the remonetization of the silver dollar of  $412\frac{1}{2}$  grains at the ratio of 16 to 1 which had been fixed by the act of 1834, and for the free coinage of this dollar on private account with full legal-tender power. It was then that the advocates of this policy expressed surprise that the silver dollar had been discontinued by the act of 1873 and that the more hot-headed among them attributed this action to conspiracy on the part of the advocates of the gold standard. It was emphatically declared by the gold men that the free coinage of silver under existing conditions would drive gold from circulation, injure the public credit, and result in a dishonest readjustment of debts which had been incurred under the gold standard. Notwithstanding these protestations, the economic condition of the country and the scarcity of money were such that the House of Representatives, in the autumn of 1877





passed a bill, reported by Representative Bland of Missouri, for opening the mints to the free coinage of the silver dollar.

The monetary system was also threatened with the free coinage of silver. Surrounded by embarrassments it was inevitable that Sherman should find difficulties in selling bonds: European financiers, alarmed by the greenback and coinage agitations, (movements to be subsequently described) expected American finances to be deranged, and returned a considerable block of bonds which competed with the new issued. In spite of all obstacles, Sherman persisted in the policy of gold accumulation. He concluded that 40 per cent of the notes was the smallest safe reserve of gold: on this basis \$138,000,000 in coin was necessary. On January 1, 1879, the treasury had gathered together \$133,000,000 of coin over and above all matured liabilities. To do this \$95,000,000 of bonds were sold, the balance being met from the surplus revenue. Slowly but gradually the value of the notes approached parity with gold, and on December 17, 1878, a fortnight before the date set, paper currency was quoted at par. In the actual carrying out of resumption, it is to be observed that there was no contraction whatever in the paper currency. No destruction of treasury notes took place, very little paper money was presented for gold, and whatever came in was paid out again by the treasury for immediate use. Under the original resumption act of 1875, authority was given for the cancellation of \$82,000,000 legal-tender (dependent upon issue of new bank-notes) which would have



reduced the total volume to \$300,000,000. Some contended that under the resumption act of 1875 there could be no reissue of the green-backs when once received into the treasury. The inflationist successes of 1877-78 settled this uncertainty once for all, since Congress, May 31, 1878 ordered that there be no further destruction of green-backs. This amount then outstanding was \$346,681,000, a slight reduction from the \$382,000,000 outstanding in January, 1875. It was also enacted in 1878 that all notes when received should be paid out again thereby keeping them in circulation. Any doubt as to the constitutional right to do this was removed by the Supreme Court. The burden of redemption in gold was thus made perpetual, although no automatic process was devised which would promise an ever-ready stock of gold for exchange. Fortunately on account of the commercial prosperity which was reflected in large treasury surpluses, the burden of keeping up the gold reserve was lightly felt during the next ten years. When, however, a new supply of treasury notes was added by the act of 1890, without any added provision for the gold reserve, and revenues showed a deficit instead of a surplus, the weakness of the arrangement was disclosed.

During the Revolutionary period metallic money and paper money remained in the confusion of the colonial period. Every foreign coin of the same intrinsic worth was given an unequal value in the different parts of the Union.



The various units of account employed in different parts of the country tended to obscure a clear understanding of the economic situation of the several states. Because the United States did not officially adopt the gold standard until 1900 her economic development was considerably retarded. It is true that we have had the gold standard from 1834 up to the present time, but since it never was declared official until 1900, our growth during the period from 1834 to 1900 was slow. Panics and depressions were the expected things. In 1837 we had a severe panic due to our poor money system. In 1861 the gold standard was temporarily abandoned and paper money was issued in its place. The issuance of this paper money caused inflation. The result of the inflation on economic conditions was at once apparent. Money began to lose its value and economic activity was almost brought to a standstill. During the Civil War considerable gold speculation took place. This gold speculation was another factor hurting our economic development since there was considerable illegal manipulation for private interests. The discovery of gold in California was another item of importance in adding to our gold holdings. When this new discovery of gold was added to the amount of money already in circulation, we had temporary inflation again. But, as this gold was real money, the effect was not as bad as though the country was inflated with paper money. In 1873 we had another panic due







again to our poor money system. During this panic, people actually went back to bartering. Gold was driven from circulation, public credit was injured, and there was a dishonest readjustment of the debts which had been incurred under the gold standard.

In the United States, the struggle by which the gold standard was finally established by law beyond cavil was made especially acute by the neglect of Congress to provide a proper system for the issuing of credit in the less developed parts of the country, and by blind gropings in search of a remedy for the industrial depression of 1893. After the country had declared unequivocally for the gold standard in the presidential election of 1896, a conference was called by the Board of Trade of Indianapolis, on the initiative of Mr. Hugh H. Hanna of that city. This preliminary gathering resulted in two large conventions of representative business men held in Indianapolis, in January 1897 and in January 1898, which demanded the enactment of laws by Congress for a "deliberately planned monetary system."

<sup>1</sup> It was demanded that such a system should provide that the present gold standard should be maintained and that steps should be taken for the ultimate retirement of government legal-tender notes. When Congress neglected to authorize a commission to frame such a measure, a commission was named by the executive committee of the convention, with ex-Senator

1. Report of the Monetary Commission of the Indianapolis Convention, p. 8



George F. Edmunds, of Vermont at its head and the Hon. Charles S. Fairchild, ex-Secretary of the Treasury. among its members.

The measure proposed by this commission was too complete and far-reaching to find immediate acceptance.<sup>1</sup> But their report, as Hepburn declared, "was forceful, lucid, and convincing, and had a great influence upon the public mind." It served at least to set up a standard toward which practical legislation was directed, if it would not absolutely attain it. To the patience, tact, foresight, and self-sacrificing public spirit of Mr. Hanna, chairman of the Executive Committee, was largely due the final fruition of the movement in the Gold Standard Act of March 14, 1900.

The Gold Standard Act of 1900 made the important declaration that the gold dollar should be the "standard unit of value, and that all forms of money issued or coined by the United States shall be maintained at a parity of value with the standard and it shall be the duty of the Secretary of the Treasury to maintain such parity." The means placed at the command of the Secretary of the Treasury for the purpose of keeping silver coins and the government notes at par with gold were far beyond the authority conferred by previous law. A definite gold reserve fund of \$150,000,000 was established, to be used exclusively for the redemption of government legal-tender notes and this fund was directed

1. The Contest for Sound Money, p. 398



to be kept unimpaired by the Secretary of the Treasury by the issue, if necessary with United States gold bonds. Government notes redeemed in gold were to be held in the reserve fund until exchanged for gold.





THE WORLD WAR AND INFLATION

1

The forces that pushed up the price level during the period 1896 to 1913 were still operating when the European war broke out. They presumably would have continued to push up prices for some time had there been no war, and they exerted an upward pressure on the price level during the war itself. While the world's annual gold production declined somewhat during the later periods of the war, the amounts produced none the less continued to be large, as compared with the average for any considerable number of previous years. and they were being poured into a reservoir of gold whose level had been for many years a rising one. It is impossible to determine to what extent, if any, some of the organic changes made in our banking system during the last six years should be attributed to war causes. An important instance is the federal reserve amendment of June 21, 1917 providing for a further reduction in legal reserves of member banks and discounting entirely all cash-in-vault legal reserve requirements for these banks. Important reductions in legal reserve requirements were made by our federal reserve legislation prior to the outbreak of the war in Europe and with no reference to such a contingency. Our banking system has been cumbersome and our use of reserves exceedingly wasteful. The remedying of these evils through the federal reserve system made possible and desirable the

1. H.R. Seager, Inflation and High Prices, (Proceedings of the Academy of Political Science) Vol. 9 pp.1-2



release from reserves of large quantities of money with corresponding reductions in reserve ratios. Under normal conditions this release would have resulted in heavy net exportations of gold.

In 1913 the most important item in our paper money circulation was the gold certificate which was backed dollar for dollar by gold and of which the circulation amounted to almost exactly one billion dollars. The new federal reserve note called for a legal minimum gold reserve of forty per cent. Even before our entrance into the war, the federal reserve bank had adopted the policy of withholding gold certificates from circulation and putting into their places federal reserve notes due to the fact that the federal reserve notes were being used for payroll purposes as a result of the increased value of labor. This policy strengthened the gold position of the federal reserve banks and put into circulation, a more elastic form of paper money. This caused inflation since a form of paper money was substituted requiring a forty per cent reserve for one which had required a one hundred per cent reserve. The federal reserve did not cause this inflation since their actions were necessitated by the increased value of labor. A billion dollars of gold certificates, if withdrawn from circulation and used as a forty per cent reserve for federal reserve notes, would permit a net currency expansion of \$1,500 millions. Under normal conditions the effect of such a policy on prices would have been small, for the policy would have forced gold out of the



country and, thereby, the resulting inflation would have been spread out rather thinly over the gold standard countries of the entire world. Prior to our own entrance as a belligerent in the war, the largest flood of gold that had ever come to any country within the same length of time in the world's history, came to us. The four months, August to November, 1914, witnessed a net exportation of gold of 85.7 millions, chiefly in response to Europe's demands upon us for the liquidation of our floating indebtedness to her. For approximately, the period since Armistice November 11, 1918 to March 10, 1920, we have had a net exportation of gold of 387 millions. Our stock of monetary gold decreased from \$3,000 millions on November 1, 1918 to \$2,271 millions on March 1, 1920. The war causes of inflation--the increased supply of monetary gold in the United States, the reduction in the legal reserve requirements of member banks in the federal reserve system, the slackening of production--all created vast potentialities of currency and deposit credit expansion of which the country availed itself, largely to buy bonds which the government floated for financing the war. Bond buyers usually did not curtail other expenditures; they consumed goods as before, banks loaned as before, but no more goods were thereby created.

<sup>1</sup>Under the pressure of the increased purchasing power, in the forms of circulating bank deposits and federal reserve





notes thus thrown on the market to be used in competition for the pre-existing supply of goods, the price level was rapidly forced upward. Our heavy net exportations of goods to Europe during the war resulted in large quantities of European securities. These securities in substantial quantities were hypothecated at our banks and served as a basis for further currency and credit expansion. It was some time before the potentialities for credit expansion which were being created in the manner above described made themselves felt in the rising price level. There was no appreciable increase in general prices from the outbreak of the war until the fall of 1916. From that time until the Armistice the general tendency of the price level was strongly upward. There was a slight reaction at the time of the Armistice, but since February, 1919, the upward movement has been again pronounced and is continuing to this day.

In 1920, the price level, as measured by the Bureau of Labor Statistics Index Numbers, was approximately 150 per cent higher than it was in July, 1914, or in the fall of 1915. There is always a lag between the time of currency and credit expansion and the rise in price level---a lag which is largely responsible for the scarcity of goods of nearly every kind at current prices. <sup>1</sup> We won our independence nearly a century and a half ago in a war financed predominantly by paper money inflation, we maintained the Union a half a century ago by a

1. E.W.Kemmerer, Causes and Progress of Inflation. (Proceedings of the Academy of Political Science) June, 1920.



war financed extensively by paper money inflation, we have just preserved our political heritage by a war financed in the United States largely by a deposit currency inflation.

Among the arguments which have been offered against the employment of loans and bank credit in financing the war has been the contention that such a policy, leading to an expansion of bank credit, would force up prices---an argument commonly cast in the mould of the quantity theory, though not necessarily involving quantity theory reasoning. To the astonishment of most adherents of the quantity theory the period since the great expansion of bank credit growing out of liberty loans, has not been the period of rapidly rising prices. Commodity prices had their great rise between December, 1916, and June, 1917, since when, the average of commodity prices has been fairly stable in the United States. From June, 1917, to the middle of 1918, stock and bond prices have had on the whole a steadily downward course.

1 Those writers who see nothing but inflation in expanding bank credit during periods of stress, emergency, and rapid transition, fail wholly to take into account the essential function of bank credit. Bank credit expands when transitions are to be accomplished. An enormous volume of new bank credit has been required to finance the shifting of industry from peace occupations to war occupations, to finance the huge receipts and disbursements of the Treasury, to ease

1. B.M. Anderson, Effects of the War on Money, Credit, and Banking in France and the U.S. pp. 184-185.



the tension of tax payments, to enable business men to liquidate slow assets while changing the character of their production and meeting the burden of taxes and loans. Expansion of bank credit is necessitated by the hoarding of deposits by business men who feel the necessity of keeping an unusually liquid position in times of stress and uncertainty. It is hard to understand what the inflationist theory would have banks do in a great emergency. It is certain that if banks refused to expand their credits in times of stress, we should have demoralization and chaos. There is a school of economists who have seen the whole cause of rising prices in the policy of the governments in borrowing instead of taxing, and in the policy of the banks in lending to the governments or to the holders of government war securities. This process is called inflation, and to the writers of this school, the terms "rising prices," and "depreciation of money," have been synonymous and the fundamental causation has been sought in monetary banking phenomena.

It seems perfectly clear that the fundamental causation involved lies in the field of production and consumption and in the fields of public policy and social psychology, and that, at least so far as the United States is concerned, the phenomena of money and banking have been largely secondary and derived, adjusting themselves to, rather than causing the more fundamental factors. The fundamental explanation lies on the surface. Fifty to sixty million men, an





enormous proportion of the labor force of the civilized world, had been taken out of industry and put to work in the most destructive kind of consumption of the products of industry. Another and larger number of men have been divested from the production of goods for ordinary civilian consumption to the production of munitions and army supplies, etc. In these facts we find an adequate explanation of the rise in commodity prices without ascribing it to the stupidity of the fiscal policy of the Treasury, without assigning it to the stupidity of the banks and without attributing it to the monetary depreciation.

Before one can assert that there has been a general rise in prices, one must take into account not only the commodity prices, but also the prices of stocks and bonds, real estate and other long time income bonds.<sup>1</sup> Under ordinary conditions, a marked rise in commodity prices may be taken as an index of a fall in the value of money. In the midst of these changes, gold has remained fairly stable.

Prices changes in different parts of the world seem to have had no close connection with the actual movements of gold. Gold came to the United States and prices rose in the United States, but gold left England and France, and prices rose in those countries even more. The effort to work out any definite correlation between gold and prices on the basis of "normal laws" in abnormal times appears to be futile.

1. B.M.Anderson, Effects of the War on Money, Credit and Banking in France and the U.S. p.204



1

Summarizing the evidence as to inflation during the period 1913 to 1919 we find that for those six years the physical volume of business increased approximately 9.6 per cent, the monetary circulation 71 per cent and bank deposits 120 per cent. The percentage of actual cash reserve held against deposits meanwhile declined from an average of 11.7 in 1913 to 6.6 in 1919. There was contemporaneously a large decline in the ratio of gold to the country's total cash and to its total supply of exchange media.

In 1919, the gold standard was generally accepted and was supposed to be in force. This was not true, for in Europe gold had been abandoned through dire necessity, and the countries of Europe had to mortgage not merely one hundred and twenty days, but many years for future production. Gold as a world-wide medium of exchange had ceased to function. Gold continued however to be the "common denominator," the standard while the gold price of currency was driven down. At the same time, the production of goods fell off, lowering the credit total; and demand for goods increased violently, raising prices in terms of gold. Of course, a huge volume of cheap credit francs and credit pounds appeared. How then, did the United States avoid a panic in 1920? Demand fell off, liquidation went ahead, all of the symptoms of the panic were there, but no panic. <sup>2</sup> Because blindly perhaps, we have set an automatic meter upon our credit dollar which keeps it at a steady price measure in gold.

1. E.K.Kemmerer, High Prices and Deflation, p 29

2. Outlook, December 13, 1922, pp. 681-683 KC.McIntosh



#### IV

### A M E R I C A ' S   P O S T   W A R   F I N A N C I A L S U P R E M A C Y

<sup>1</sup>

The end of the war found the credit systems of the European nations undermined. America, because of her strong economic position, became a creditor nation---not only supplying materials, but also food to the starving people; New York became the financial center and the American dollar the arbiter of world exchange. For example: During the year 1910 the exports of the United States to Europe amounted to over \$5,187,000,000 while the off-setting imports were about \$750,000,000. The inevitable results of this coupled with enormous loans to some of the European governments as a result of the war, was a severe depreciation in foreign exchange measured with the American dollar. Britain's pound sterling, normally worth \$4.8665 fell in January, 1920 to the unprecedented low record of \$3.19; German marks normally worth about 23.8 cents, fell as low as 1.05 cents while French francs, normally worth about 5.18<sup>1</sup> per \$1.00 suffered a sympathetic decline to the record of 13.38 and 14 per dollar.

At the forty-eighth annual convention of the American Bankers' Association meeting in New York City, October 2-6, 1922, the British banker, Mr. Reginald Mc<sup>A</sup>enna, asked his American colleagues "to treat England's debt to the United States as certain to be provided for." His conclusions, presenting a comprehensive view of the financial status of the

1. J. Kavanaugh, Bank Credit Methods and Practice, pp.21-22





world today and summarized by the New York World are reprinted by the Literary Digest: <sup>1</sup> "First, that England can pay interest and sinking fund, because she still possesses foreign securities with which to pay. Second, that the other debtor countries, including France and Italy, do not have foreign securities with which to pay their debts. They could pay only by exporting more goods than they import; and since the world is not prepared to take a great surplus of French and Italian exports, hope of payment from these countries must be definitely postponed, and nothing expected ultimately, except what can be paid by the export of goods. Third, that Germany can pay now only with foreign balances which she still possesses. But these balances could only be used for reparations if individual Germans would sell them to their government. This consent can only be obtained by offering them at a profit, which in turn can only be done by improving themark."

1. Allied Debt as a Peace Club (Literary Digest O. 21, 1922, p.13)



W H Y   G O L D   C O M E S   H E R E

Some officials in Washington, according to the anonymously inspired dispatch of Richard V. Oulahan to the New York Times, are becoming restive under the criticism of the Administration for the unparalleled concentration of gold in this country. It is not their fault, they say. There is no hoarding of gold in the United States. The gold is coming here because of the flight of capital from other countries, where confidence in governments, banking systems, and currencies has been shaken. <sup>1</sup> The gold has come here because it is seeking a "refuge." That, apparently is all there is to it. Indeed, Mr. Oulahan's dispatch goes so far as to say: "It is held in informed quarters here that those disposed to set up the accusation of hoarding should understand that neither the government nor its citizens had anything to do with the flow of gold from abroad."

This is an amazing statement, but there is at least one element of truth in it. An important school of British economists, including such distinguished members as Sir Josiah Stamp and Maynard Keynes, has contended that our Federal Reserve Board has deliberately been pursuing a policy of hoarding and sterilizing the gold. There does not appear to be any convincing evidence for this contention. On the

1. Why Gold Comes Here: The Nation, September 23, 1923. p.297



contrary, the Federal Reserve Board and the individual reserve banks appear since the war to have been pursuing every possible policy that would tend to drive gold out, rather than draw it into the country. Contrary even to what is generally considered sound central banking policy, they have kept their discount rates below open market rates, and they have forced down open market rates themselves by their policy of buying bills extensively in the open market. With money rates low in this market, the tendency would have been other things equal, for international balances---which ultimately mean gold---to flow to the markets of other countries where they could command higher rates. Our artificially low rates, however, while apparently ineffective in keeping gold from flowing here, were highly effective in a way not at first intended, for they encouraged and stimulated the most extravagant orgy of stock speculation in our history, and the timidity, and even political pressure that kept those rates from being promptly raised when stock speculation got out of hand finally led to the subsequent disastrous collapse.

The unnamed Administration officials at Washington would be in the main correct, therefore, if they contended that our immense gold holdings had not come here as the result of American banking policy. When they go on to assert, however, that neither the Government, nor its citizens, had anything to do with the flow of gold from abroad, they are talking  
<sup>1</sup>  
 nonsense. Two factors are principally responsible for bringing





gold here. The first is our preposterous tariff, which amounts virtually to a frank declaration on our part that we do not want to be paid for our exports with our imports. The other is our heavy, private, foreign investments, amounting to about \$15,000,000,000 and the debt of nearly \$12,000,000,000 owed to us by foreign governments, the interest and principal of which, we demand shall be paid.

Finally, it might be pointed out, that even the lack of confidence in foreign governments, is in large part the result of our own political policy. Not until we proclaim our readiness to cut the war debts are the German reparations likely in turn to be reduced to a figure that might facilitate trade stability.

It was the opinion of Cairnes, Jevons, Levasseur, and Soetbeer, eminent economists of the nineteenth century, that the great output of gold, in the fifties and sixties had caused an average increase to the prices of commodities, equal to about 20%. In some cases the increase was greater than the average, in others less; and in still others it counteracted a decline of price, which would ordinarily have taken place, by reason of new inventions and improved processes of production.

The way in which new supplies of gold operate on prices will now be considered.<sup>1</sup> The essential quality of gold is that it constitutes purchasing power. It is per se a demand for goods. People do not mark up prices of the things they

1. Encyclopedia Americana:- p. 59



have for sale, merely because new gold mines have been discovered, however, rich they may be. If a portion of the community (gold miners or others) should find \$2.00 in their pockets where they had been only \$1.00 prices would not rise in consequence merely of that fact. Tradesmen would ask the same prices for their wares, laborers would work for the same wages as before, buyers would expect to receive the same quantities of goods for a dollar, as before. But the possession of double the quantity of money by the fortunate persons, would double their demands for goods, and this increase of demand would cause an advance of prices. The attempt to supply the demand would call for more labor and cause an advance of wages. Then the advance of wages would enable the wage-earners to improve their style of living by buying more goods and there would be a further advance in prices unless it should be counteracted by new facilities of production and transportation. Such new facilities would almost certainly be called into existence. In other words, industry would be stimulated.

It was in this way that the new supplies of gold operated to cause the advance of both prices and wages in the 20 years succeeding the great gold discoveries of California and Australia. The community was not made richer by using two dollars, instead of one, to transact a given amount of business, but the distribution of the earnings of society was shifted by giving an advantage, as Prof. Cairnes showed at the time, to wage earners over rentiers and others living



fixed incomes. The former had steadier employment and better wages, while the latter were obliged to pay higher prices for consumable goods without any enlargement of their income.

In the decade 1891-1900 the production of gold was more than twice as great as that of the decade 1851-1860. Why has not the same effect on prices been noticed as was observed after the great output of California and Australia? There was some advance in prices during those last five years which may be fairly attributed to those new supplies of gold. The counteracting forces of new inventions and facilities of production and transportation, and the bringing of new land under cultivation, were very active and potent during that time. Moreover, the amount of gold in existence in 1891, upon which the new supplies impinged, were larger than the amount of both gold and silver in 1850. Yet it was fairly anticipated that we were on the eve of another period of advancing prices, due to the great output of gold, mentioned above.





## VI

### THE VALUE OF GOLD AND THE VALUE OF MONEY

In a gold standard country, the quantity of money is such, that its value, and that of a defined weight of gold, are kept at an equality with one another. It looks, therefore, as if we could confidently take a step forward and say that in such a country the quantity of money depends upon the world value of gold. Before the war this would have been a true enough statement, and it may come to be true again, in the lifetime of those now living. It is worth while therefore to consider what, if it be true, are its implications.

<sup>1</sup> The value of gold in its turn depends on the world's demand for it, for all purposes, and on the quantity of it in existence in the world. Gold is demanded not only for its use as money and in reserves, but for industrial and decorative purposes, and to be hoarded by the nations of the East; and the fact that it can be taken and absorbed into, or ejected from these alternative uses, sets a limit to the possible changes in its value, which may arise from a change in the demand for it for monetary uses, or from a change in its supply. But from the point of view of any single country, the most important alternative use for gold, is its use as money, or reserves in other countries; and this becomes an occasion for a very important matter. For it means, that a

1. D.H. Robertson:- Money pp.79



gold standard country is liable to be at the mercy of any change in fashion, not merely in the methods of decoration or dentistry of its neighbors, but in their methods of paying their bills. For instance, the determination of Germany to acquire a standard of gold, in the 'seventies' materially restricted the increase in the quantity of money in England.

If we assert that at the present day the quantity of money in every gold standard country, and therefore its value, depends on the world value of gold, we shall be in danger of making a grave mistake. For the world's demand for gold includes the demand of the particular country which we are considering:- and if that country be very large and powerful like the United States, the value of gold is not something which she must take, as given and settled by forces outside her control, but something which up to a point, at least, she can affect at will.<sup>1</sup> It is open to the United States to maintain what is in effect an arbitrary standard, and to make the value of gold conform to the value of her money, instead of making the value of her money conform to the value of gold. And this she can do while still preserving intact the full trappings of a gold circulation or gold bullion system.

Now for a number of years, for reasons connected partly with the war and partly with its own inherent strength, the United States has been in a powerful position in regard to

1. D.H. Robertson:- Money pp.80



its control over gold. More than one third of the world's monetary gold is still concentrated within her shores; and she possesses two big elements of play in her system--the power of varying considerably in practice, the proportion of gold reserves which the Federal Reserve Banks hold against their notes and deposits and the power of substituting for one another two kinds of common money: against one of which the law requires a gold reserve of 100 per cent. It seems as though the United States has been deliberately trying to treat gold as servant, and not as a master.

<sup>1</sup>It would be misleading to say that in America the value of money is being kept equal to the value of a defined weight of gold; but it is true that the value of money and the value of a defined weight of gold, are being kept equal to one another. We are not therefore forced into the inconvenient, paradoxical statement, that America is not on a gold standard. Nevertheless it is arguable that a truer impression of the world's monetary affairs, would be given, by saying that America is on an arbitrary standard, while the rest of the world has climbed back painfully to a dollar standard.

<sup>2</sup>One reason for the stability in value of the precious metals over short periods, is that the mass of gold in existence at any one time is very large in proportion to the product of any given year. The total amount of wheat, in exist-

1. Money, D.H. Robertson, pp.1

2. Carver, Principles of National Economy pp.368





ence at the present moment, has practically all been produced within the last year, or two years at the outside. Of the total gold in existence a very small fraction was produced within the last year or two. Since it would take a number of years of excess production of gold to make an appreciable difference in the total quantity available for the world's supply, gold does not fluctuate much from day to day, from week to week or even from year to year.

As most of the transactions in which we use money are short-time rather than long-time transactions, it is more important that the money material be stable over short periods, than that it be stable in value over long periods. The average business transaction has very little relation to long periods of time. This is one of the principle reasons why gold serves the purpose of a money material, better than most other products.



## VII

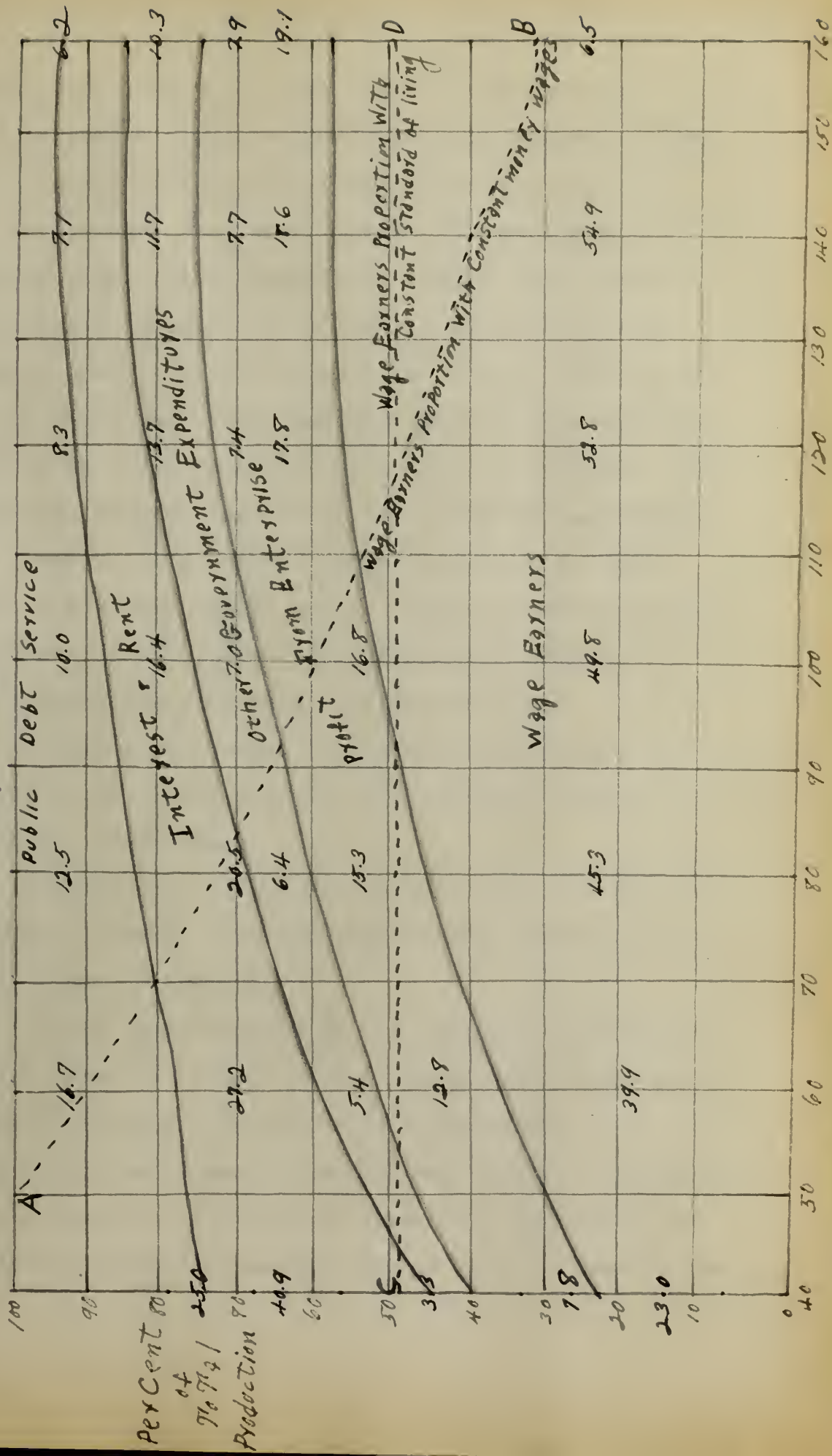
### C R E D I T   A N D   G O L D

It has been found convenient in discussing the principles by which the value of money is determined, to proceed at first substantially on the assumption that money consists of gold, and that changes in the quantity of gold in a community react directly upon the prices of other commodities than gold. With the introduction of other forms of currency and also of credit which is not in the form of currency, new factors are brought into the problems. A mass of currency results, consisting of gold and paper together, whose aggregate movements are influenced by economic changes in much the same manner as the movement of gold would be influenced, if it were the sole medium of transactions; but by the introduction of the new factor the direct relationship between gold and other commodities is more or less modified and obscured. It remains true under the most complicated forms of the modern credit system that radical changes in the supply of gold will react finally upon the prices of some commodities, but the credit system makes this reaction at once more complicated and less direct than if no such intermediary came between gold and goods.

The form of credit which is most directly sensitive to changes in the quantity of gold is that which takes the form of currency---whether government notes, bank-notes, or token coins. It was formerly supposed that these forms



Changes in distribution of national production is a result of changes in the general level of prices, the volume of production being constant.







of credit---falling within the popular definition of "money" responded almost automatically to changes in the volume of gold, because such forms of credit were protected by definite reserves of gold. Modern methods of converting capital into negotiable credit have however, been so multiplied and are so interlaced one with the other that great variations may occur in the quantity extended by banks and trust companies without corresponding variations in the quantity of gold held as reserves. This fact imposes caution upon attempts to argue from changes in the quantity of money to changes in prices or from changes in the quantity of money. Three propositions may be laid down on this head as modifying the tendency towards an exact ratio between gold and prices.

First, that changes in the quantity of gold in a community do not cause exactly corresponding changes in the quantity of currency.

Second, that changes in the quantity of currency do not cause exactly corresponding changes in the quantity of other forms of credit.

Third, that changes in the quantity of currency or of all forms of credit are not accompanied by exactly corresponding changes in prices of commodities.

A variety of forms of credit have taken the place of gold as a medium of exchange in commercial countries and have thereby greatly economized its use. With certain re-



servations these forms of credit may be considered as complete substitutes for gold. As such substitutes, they change the relation which would exist between money and commodities if the entire work of exchange were imposed upon gold.<sup>1</sup> As Pantaleoni declares:

"The law of the value of instruments of credit comes to be, that every such instrument is worth as much as the money for which it is substituted, and whose value it has reduced below the level it would attain, if no instruments of credit were in circulation as a medium of exchange."

Ultimately the value of substitutes for gold depends upon gold. They cannot retain a fixed value in gold unless they are exchangeable for it. Hence a definite relation has been assured between substitutes for gold and the amount of metal held in reserves. In most countries, however, even an approach to a definite relationship of this sort exists only between gold and those forms of credit which are used as currency. Other forms of credit, like deposits, checks, bills or exchange, and clearings, operate to economize the use of money without having any definite relationship, fixed, either by law or custom, to the stock of gold. These forms of credit, however, do not differ greatly from those which circulate as currency. They are, in effect, promises to pay gold on demand and it is the business of bankers to see that the stock of gold does not become too attenuated in relation to such promises. It is not the absence of such

1. Pure Economic-pp.240.



relationship which it is sought to establish here, but the extremely wide limits within which the volume of gold on the one hand or of credit on the other hand may vary without producing any obvious influence on the other factor. <sup>1</sup> The absolute increase of demand for gold quantity of deposits is so insignificant compared with the total world's supply of gold, as to be disregarded.

Theoretically a definite relationship exists when, as in the case of the national banks of the United States, fixed reserves are required against deposits. The National Banking Act prohibits any national bank from making a loan or declaring a dividend after its reserve has fallen below the legal limit. In theory, therefore, an export of gold derived from the reserves of the New York banks should be followed by a contraction of four times the amount in deposits, but, practically, the relation cannot be established mathematically, because the proportion of reserves is constantly changing. is usually in excess of legal requirements (although sometimes below it) and because deposits are kept by trust companies, State banks and other institutions which are not governed by the same reserve laws. Such institutions, in many cases, keep large deposits with national banks which maintain metallic reserves, and there results from this system a duplication of the credit secured by

1. Laughlin:- Principles of Money, pp.128





the reserves, which permits great elasticity in expanding and contracting credit and makes it practically impossible to deduce any fixed mathematical relation between credits and gold.

When changes of prices accompany changes in the volume of credit, the former are more likely to be the cause of the latter. This results inevitably from the fact that credit instruments are often created by the exchange of goods. A manufacturer who wishes to buy raw materials makes applications to his bank for a loan. The loan might be made to him by giving him gold or by handing him bank-notes. In the latter case, a demand for gold would not be involved unless the bank had already issued notes to the maximum amount allowed against its existing reserve.<sup>1</sup> As business increased credit money increased and if the effect of increasing business is to raise prices, and thus to require an additional quantity of media of exchange, a credit increases in proportion and the additional media are at once forthcoming. Thus the quantity of money in use at any given time depends on business, and not business on money. It is business which creates money, and not money which creates business.

Not only may credit be greatly expanded without calling for an increase in the stock of gold, but conversely, there may be an increase in the stock of gold without a

1. Farrer:- Studies in Currency, p. 182.



corresponding expansion of credit. When a quantity of new gold enters a community already fairly well equipped with a medium of exchange it is apt to find a resting place in reserve banks. Whether it shall be soon expanded and availed of as a basis for increasing loans depends upon the condition of credit. If there is little demand for increased credit, the new gold may lie for a long time in reserves, and eventually be exported without any visible effects in rising prices.

Prices are much more influenced by the state of industry and of credit than by the supply of precious metals. If there has been over-production of certain commodities beyond effective demand for them, a sudden influx of new gold will not restore equilibrium. At such time of depression there is usually more than enough gold in bank vaults for current demands; and there is still more idle capital in the form of banking credits awaiting investment, but hesitating from lack of confidence to accept the investment on the market. The influence of the influx of new gold upon a depressed market would be governed as much by the exact point which had been reached in revival of confidence as by the quantity of new gold. If the collapse of credit had just taken place and the period of prostration had only begun, the new gold would have little influence in reviving activity, because it could not restore the shattered equilibrium between effective demand and supply of commodities. If, however, the influx of new gold came when the period of de-



pression was nearing its close, and industry were on the eve of revival, the new gold might add a factor to the impulse of reviving activity. To this extent changes in the quantity of gold act upon prices in the manner set forth by Andrew:<sup>1</sup>

"While, then, there is a measure of elasticity in the credit currency, so that in every cycle of trade there are fluctuations in the monetary supply that do not reflect themselves in the amount of credit, nevertheless the quantity of money held by the banks sets a limit beyond which credit cannot be extended, and in the course of every cycle this limit is actually reached. In the long run, as apart from the cyclic oscillations, the quantity of banking credit is governed by the quantity of money, and each permanent addition to the monetary supply tends in the end towards an increase of credit."

In the United States the stock of gold money increased by more than 100 per cent from 1896 to 1903, and the total stock of money increased by nearly fifty per cent. Prices of commodities advanced considerably during this period, but in no such ratio as the increase in the quantity of money. Upon the whole the banks absorbed considerably more than their proportion of the new gold, but absorbed much more from 1897 to 1899 than during later years. Notwithstanding the increase in the stock of money from year to year, the

1. Andrew:- Proceedings of the American Econ. Assoc. p. 114





demand for its use outside the banks was so great as to leave a decreasing proportion to be added to bank reserves. Loans and deposits increased until 1903, when there came a fall of prices in securities and an arrest in the upward movement of commodity prices.

At first it might seem that this result was a demonstration of the relation of prices to the stock of money. The question at issue, however, is not whether the stock of money kept pace with the demand for it, but whether changes in the supply of money were in themselves the causes of changes in prices. It is undeniable that periods of industrial activity increase the demand for standard goods and in most cases the demand for standard money. But the variations in the prices of goods do not follow with any regularity the variations in the stock of standard money, because elasticity is given to the monetary system by the use of the various forms of credit. The employment of credit in a large proportion to metallic money may be compared to the stretching of a rubber band; periods of diminished credit to the relaxation of the band. The length to which the band is stretched will afford no definite indication of the amount of rubber which it contains. Even if it were admitted in theory that apparent changes in the value of money over ten year periods were due to variations in credit, while the changes over longer periods were due to changes in the quantity of standard money, it would remain true that no safe rule could be framed



for separating the one source of variations from the other and thereby determining by prices the real variations in the value of standard money due to changes in its quantity.

One of the most important of the influences which counteract the effect of changes in the quantity of gold is the state of credit. If an increase or decrease of the gold stock is to produce a direct and visible effect, the state of credit must be constant. The same willingness to loan must prevail at all times, the same degree of confidence must exist among the bankers, the same rate of discount must be open to borrowers (else the number of borrowers will be diminished); the demand for capital must be unchanging, and the entire movement of bank credits and clearings unchanged, except as it is affected by the increased supply of metallic money. Such conditions are never realized. If such absolutely static conditions arose in New York, some incident in Berlin or London or Paris would disturb them by increasing the rate offered for gold in those places and so changing the relations of the money market of New York to that of other parts of the world.

One of the factors which demonstrate that the price of commodities is not determined by the supply of metallic money at a given moment is the movement of money back and forth between the stock exchanges and the money markets under the influence of changes in discount rates. An acute



demand for credit, due in part to undue expansion of credit in relation to gold, is often met by the sale of bills of exchange upon foreign banking houses.

The movement of money under the operation of the charge for its rental---technically called the "discount rate" is often independent of any direct and obvious variation in its exchange value in commodities. Changes in the discount rate attract money for the special purposes for which it is needed by brokers and bankers, who have contracts to deliver money which they may be called upon to fulfill. It is only when the demand for money is the symptom of deeper economic disturbances---in the misapplication or increased demand for circulating capital---that changes in the discount rate are followed by changes in the value of money as measured in commodities. The two influences often accompany one another, but they are not inseparable. The rate of interest is the measure of capital rental, and it may happen that an increase in the supply of money is not accompanied by high prices nor low interest rates.

The rate of interest was sufficiently high in the period from 1850 to 1860 when money became so abundant by the influx of the gold of California and Australia: it was, on the contrary, very low in Western Europe during the period 1882 to 1892 although the production of gold, the only actually effective money of the rich nations of Europe, was considerably restricted.





In regard to temporary fluctuations in the exchange value of money, it is clear that they are not controlled by the ratio of the quantity of money to the quantity of goods. There may be a great rise in the value of money without any corresponding reduction of the quantity, and there may be a great fall in its value without any corresponding increase in its quantity. Its value must be measured by the prices of one commodity or several, or by the representatives of such commodities. Taking securities as such a basis for the value of money, the six months of the spring and summer of 1903 witnessed an average decline of perhaps forty per cent in the price of securities quoted on the New York Stock Exchange. If these titles to property were the gauge of the quantity of money in the United States, then the amount must have decreased by forty per cent within the brief space of six months. In fact, neither the mass of gold in the world, representing about five thousand millions of dollars, nor the stock of gold in the United States, amounting to about twelve hundred millions, nor the total currency supply of the United States suffered material changes during this period. The total circulation rose from \$2,374,353,720 at the end of April to \$2,427,394,868 at the end of October and the per capita circulation increased from \$29.08 to \$29.99.

The changes in the purchasing power of money which occurred under these circumstances were due to changes in the condition of credit and the demand for capital. With the



decline in the quantity of available credit, due to absorption of floating capital in new enterprises, the demand for money became more acute than the demand for securities and, without any decline in its quantity, its purchasing power over securities was increased. Such instances go far to demonstrate that changes in the conditions of credit are so wide, and frequent as to deprive of value the comparison of prices in order to reveal the effects of changes in the quantity of money. It may be true theoretically, and probably is, that other things being equal, a change in the quantity of money would cause a change in the relation of money to certain commodities. If, however, the changes over a short term of years caused by a large increase or decrease in the stock of money are confused by the more frequent and extreme changes caused by other influences, then it becomes extremely difficult, if not impossible, to isolate the residuum of the change in the relations of money to prices caused by changes in the quantity of money in existence.

The temporary changes in the ratio of money to goods would, moreover, be found upon almost any reasonable hypothesis to be much more important than the permanent changes. Let it be supposed, for illustration, that within a period of fifty years there was an increase of 100 per cent in the ratio of the quantity of money to be used to the quantity of transactions in which it was employed. The average in-



crease in the quantity of money then would be two per cent a year. While a permanent gain or loss of this amount would be a factor of some importance, it is nothing like as great a factor as an advance or fall of prices due to changes in the condition of credit and the relation of production of goods to demand for them. These changes often reach twenty five per cent in five years, or five per cent a year. They would represent, therefore, in the case supposed, an influence more than twice as important as the influence of the gradual increase or decrease of the stock of metallic money. It is interesting to consider how these influences would interact upon one another if they were felt in the opposite directions. Let it be supposed that with the gold supply steadily increasing at the rate of two per cent a year, there was a collapse of credit amounting to five per cent a year for five years.

1

The result may be set forth in the following table:-

year	Rise of prices by depreciation of gold (per cent)	Fall of prices by impaired credit (per cent)	Net fall in prices (per cent)
1890-----	2	5	3
1891-----	4	10	6
1892-----	6	15	9
1893-----	8	20	12
1894-----	10	25	15

Thus it would appear that with a steady increase of the gold stock at the rate of two per cent per year, a decline

1. Conant:- Principles of Money and Banking, p. 195.





of prices to the amount of fifteen per cent in five years might emerge. On the other hand, if the gold stock was decreasing at the same rate, and credit expanding, we should have just the opposite result---a net increase in prices of fifteen per cent. If both influences operated in the same direction, there might be a rise of prices by thirty-five per cent or a decline of thirty-five per cent.

In presenting the table it has been necessary to assume a definite foreknowledge of the effect of two conflicting influences. But it is just this assumption which is the thing sought to be proved by tables dealing with the relation of currency to prices of commodities. The method usually employed is that of averaging prices over long periods, upon the theory that the rise of prices due to expanding credit will be in the same proportion in one period as another. It is obvious, however, that this is an assumption for which evidence is lacking. A number of influences, like the opening of new markets, the disturbance caused by war and rumors of wars, the difference in the character of speculation at different periods, changes in the economy of money (like the creation of stock-exchange clearing-houses) the different rates of earnings for capital under varying conditions of its supply---all enter into the problems, and make it clear that the ratio of expansion due to credit conditions in one period is not evidence of the ratio of a expansion due to such conditions at some other period. So powerful is the influence of change in conditions



of credit in modifying the quantitative relations between gold and goods as to abundantly justify the caution given by Keynes in regard to the quantity law of money:<sup>1</sup>

"This is, in a sense, a hypothetical law: it does not enable us to say that whenever there is an actual increase in the quantity of money in circulation there will be actually a rise in prices; nor does it even enable us to say that if we find an increase in the amount of money in circulation taking place concurrently with a general rise in prices, the latter phenomenon must of necessity be wholly due to the former. For the cause in question is not the only one capable of affecting general prices. Its effects may, therefore, be counteracted by the concurrent operation of more powerful causes acting in the opposite direction, or exaggerated by the concurrent operation of causes acting in the same direction."

1. Keynes:- Scope and Method of Political Economy, p.216.



THE RELATION OF MONEY TO PRICES

It has been seen that the quantity of money is one of the influences affecting its value, but that it is only one of the many influences acting upon the relations of money and other things. We have seen that even if credit were not a factor in modern monetary operations, the effect of changes in the quantity of money would be first felt upon certain goods rather than uniformity upon all goods. We have seen also that the relation of the quantity of money to the quantity of goods is still further complicated by radical and frequent changes in conditions of credit, which are usually more potent over short periods than the changes which could be produced by changes in the quantity of gold. With these qualifications of the quantity theory of money firmly fixed in the mind, it becomes possible to deal with moderation with the history of prices, and to admit the influence which may have been exerted over long periods of time by changes in the ratio of the quantity of gold to the quantity of goods and of transactions.

<sup>1</sup> One of the reasons why changes in the quantity of gold or of other legal-tender money are felt in only a small measure over limited periods of time is the small ratio which the production of gold in a single year or in several years bears to the existing stock. If money were a perishable article, so that the whole supply was the product of a single

1. Conant:- Principles of Money and Banking, Vol. 2, p.199





year, then it would be subject to the same violent fluctuations in relation to other things which might be true of wheat, potatoes, or oranges, whose product varies greatly from year to year. It has already been seen that a considerable portion of the annual production is absorbed, other things being equal by increasing demands for gold for the arts, for replacing wear and tear in the money stock, and for increase in volume of business.

This last demand would not be in a definite mathematical ratio to increase of business, but upon the whole, a large increase in the number of transactions over a series of years would demand an increasing quantity of gold. With these elements given due weight, it is evident that an increase of three per cent a year in the gold stock of the world would be far from implying that the ratio of gold to goods had increased in a corresponding proportion. This could only be true in case the annual production of other things remained stationary in volume, while that of gold advanced. Both gold and other goods are subject to fluctuations in volume of production. The amount of goods produced may in some years more than keep pace with the increase in the production of gold and in other years may fall far behind, but upon the average of a series of years during the modern industrial era production both of goods and of gold has increased.



It is obvious, therefore, that an increase of three per cent in the stock of gold is not a fact which in itself carries that demonstration of an increase in the ratio of gold to other things. Even if such an increase were conceded, we have seen that the principles governing the value and distribution of money are such that the change would not in any case be uniformly distributed, that the new gold would probably not enter at once into use as money, and that the influence of its increased quantity would be involved with and counteracted by manifold other influences acting upon prices.<sup>1</sup> The slowness with which any alteration in the productiveness of the mines shows itself is strikingly proved by the fact, that the civil disturbances have rendered the Mexican mines almost totally unproductive for the last fifteen years, so much so indeed, that silver has been sent to Mexico from Europe, and yet neither the general value of silver nor its specific value in gold, has suffered any perceptible alteration.

The important movements in prices which have been commonly ascribed to changes in the quantity of gold and silver money have been the advances in prices which occurred in the sixteenth and seventeenth centuries, after the discovery of the treasures of Mexico and Peru; the advance in prices which occurred after 1860 when the mines of California were pouring their treasures into the money market; and the check in this advance, which occurred after 1873 and was attributed by the opponents of the gold standard to the scarcity

1. Senior: The Value of Money, p. 73



of gold and the abandonment of silver as their standard of value.

The system of index numbers, so-called for comparing changes in prices, was adopted by Jevons in order to reduce to a common basis of comparison prices for widely variant units of different commodities. The method adopted was to take the monthly prices of certain articles, reduce the monthly prices for each for the year to an annual average, and reduce the differences shown between prices for different years to a decimal scale, determined by assuming the average price for a given year or series of years to represent 100. Thus, if wheat sold in 1850 at \$1.20 per bushel and in 1865 at \$1.50 the index numbers obtained, if prices in 1860 were treated as the baseline, would be 100 to 1860 and 125 for 1865. This method of treating prices enabled Jevons to claim that he had reduced prices of different articles, based upon different units of value, to a common basis of comparison, upon the ground that ratios "are things of the same kind, but of different amounts, between which we can take an average."<sup>1</sup> This conclusion is debatable and is subject to many pitfalls in practice.<sup>2</sup> We are considering relations, and Jevons draws an average between relations, neglecting meantime the objects related, and then he applies the result to the objects.

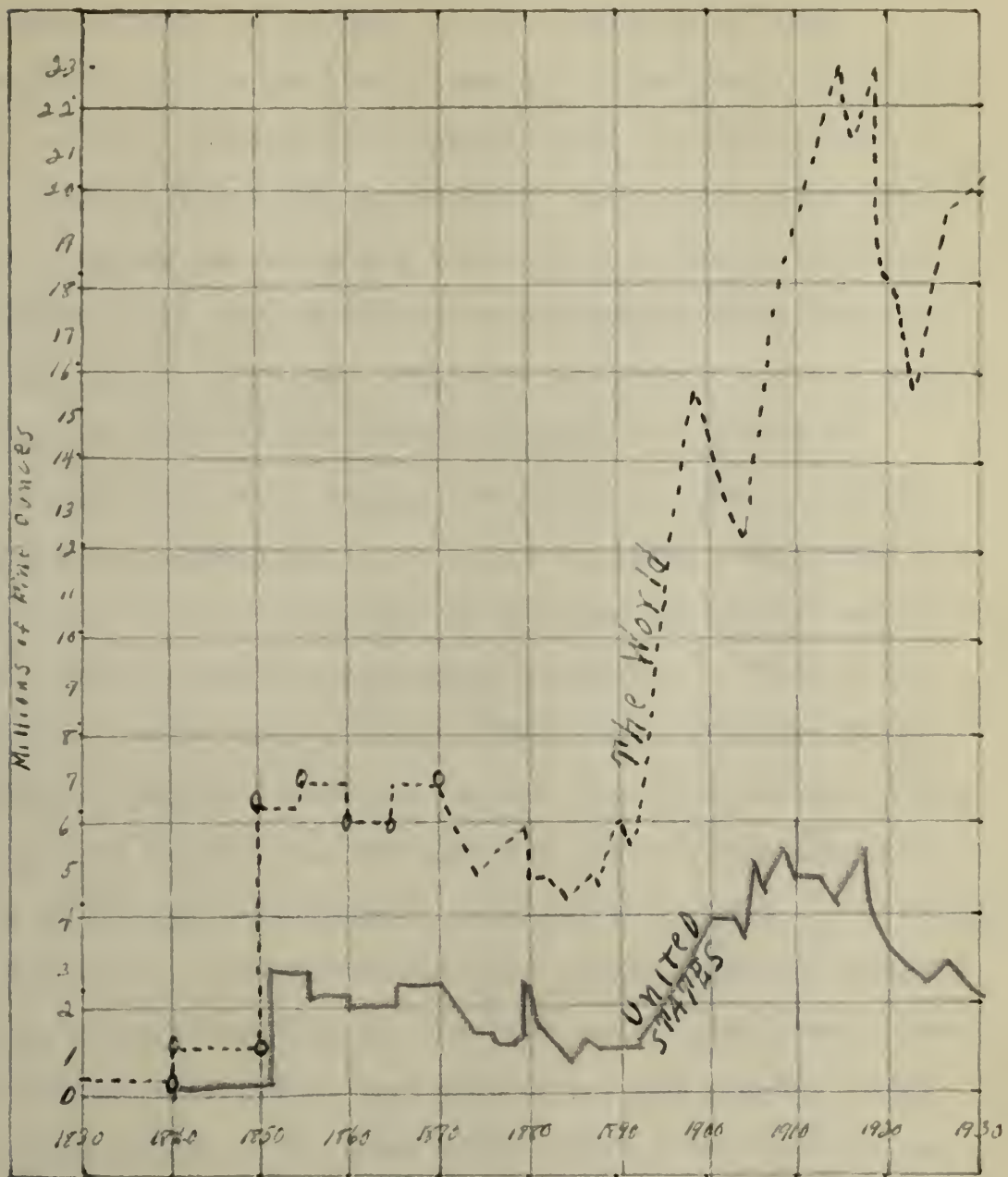
Jevons recognized the criticism which would be directed against taking the prices of a single year---that they would be materially influenced by fluctuations in conditions of cred-

1. Investigations in Currency, and Finance, p.23
2. Prices and Index Numbers, in Journal of Political Economy (March, 1900) Vol. 8, p. 187.





Stability: One form of the "proof" of the stability is that "the price of gold" never varies in a gold standard country. In the U. S. Pure gold sells at about 20 dollars an ounce, (exactly \$20.67)



Annual Mine Production of Gold in the World and in the United States of America from 1871 to 1927, with 10-year Annual Averages from 1830 to 1950, and 5-year Annual Averages from 1850 to 1870.



it, independently of changes in the quantity of gold. He sought to eliminate this element of disturbance by taking as his baseline the average level of prices for the six years 1845-1850, inclusive. Taking the combined prices of three years as the equivalent of 100 he reduced the price of the same articles to a corresponding basis for each year and in this way sought to ascertain the variations from year to year in the average prices of a group of thirty-nine articles, ranging from 89.6 in 1849 to 128.8 in 1857 and backward again to 113.4 in 1862. Admitting the possibility of difficulty due to changes in conditions of credit, Jevons made the following argument. <sup>1</sup>"Such a revulsion of credit took place in 1857; but, although five years have since elapsed, prices are far from having fallen to their old level. In the last two years especially, the dearth of cotton has caused a depression of trade of a formidable character. The lowest average range of prices since 1851 has indeed happened in the last year, 1862: but prices even then stood thirteen per cent above the average level of 1845-1850: and it is most highly improbable that prices will long continue to fall; yet prices have continually stood above the high point they reached in 1847. Examine the yearly average prices at any point of their fluctuation since 1852 and they stand above any point of their fluctuations before then within the scope of my tables. There is but one way of accounting for such a fact, and that is by supposing a very considerable permanent depreciation of gold."

1. Investigations in Currency and Finance, p.48.



One of the simplest tables which will illustrate a system of index numbers is that of Sauerbeck which takes average prices for the ten years 1867-77 as 100. Thirty seven different articles are used, but several in different grades, so that a total of fifty-six items is included. The average index numbers obtained for certain representative years are as follows:

#### SAUERBECK'S INDEX NUMBERS

(Index numbers for 1867-77 equal 100)

Year	Total Food	Total Materials	Grand total
1846	95	85	89
1850	75	78	77
1855	101	101	101
1860	98	100	99
1865	91	108	101
1870	93	99	96
1873	107	114	111
1875	100	93	96
1879	90	78	83
1889	94	84	88
1885	74	70	72
1887	70	67	68
1890	73	71	72
1895	64	60	62
1898	68	61	64
1899	65	70	68
1900	69	80	75
1901	67	72	70
1902	67	71	69

The grand total is not necessarily the average of the two totals given, because these latter are only the average of the prices of articles which are not the same in number under both sub-heads. The lowest and highest figures obtained for various years are given in order to show how con-





siderable are the variations of prices from year to year.

It is not obvious why the ebb and flow of gold should be rejected as the controlling influence in fixing the actual prices of wheat in January and July and should be accepted as fixing the intangible concept of the "average price." The rejection of the influence of the gold stock in fixing actual prices involves the admission of a fact dangerous to the entire theory of index numbers and indicating the effect of changes in the gold stock on goods--that the fluctuations in actual prices which are caused by influences directly affecting goods are much greater than those caused by changes in the stock of gold.

Another insidious danger of the system of averages is the averaging of statistics of prices without reference to the volume of transactions at these prices.<sup>1</sup> It would not be a singular phenomenon if the low price should attract an unusual sale. Still another source of error is giving equal weight to different articles, one of which may be worth much less in the budget of family or industrial consumption than another.

<sup>2</sup> Still another source of danger is the fact cited by Kinley that "Consumption changes its character." With the exception of a few articles included among the necessities of life there is almost nothing which demand may not change very much between two dates of consumption.

1. Journal of Political Economy (March, 1900) VIII: p.183
2. Kinley:-Principles of Money, p. 158



Among the considerations which counsel caution in accepting index numbers and averages as proving anything definite in regard to gold, the following are a few:-

1. The fall in the labor cost of producing commodities through the increased efficiency of machinery.
2. The fall in the market price of products by reason of the reduced cost of transportation.
3. The increase in the efficiency of labor shown by the increase of wages measured in gold.
4. The increase in the volume of goods exchanged between distant places as the result of the increase in the product of labor and the increases in the facility of the distribution of this product.
5. The economies in the use of gold caused by more prompt communication and the use of foreign credits within a shorter time.

The many facts which have been cited are not in themselves a demonstration that the value of gold does not move up and down in proportion to the quantity of goods exchanged in the market places. They tend, however, to establish the proposition that averages of prices obtained by index numbers from a mass of commodities constantly shifting in quantity in proportion to one another, in quality, and in relations of supply and demand in one place and another, cannot afford a mathematical index of the value of gold arising from changes in the quantity of gold. <sup>1</sup> It is apparent that the variation in the purchasing power of money is a consequence, an effect,

1. Journal of Political Economy, (December, 1898) VIII, p. 75



of obscure and complex causes. The total index number gives us, then, the effect measured in money, of all the technical, industrial processes and of all other causes which have determined the changes in price of the enumerated commodities. If the index number shows an increase in the purchasing power of money, it is in effect a consequence of these factors and the decline in the prices of commodities is due to those varied and complex causes.

It is possible to argue that the rise of prices is due to expansion of credit and that this rise of prices is the influence which attracts the amount of gold required for carrying on transactions. This makes gold follow the variations of prices instead of causing them. The manner in which the change is interpreted by the advocates of the quantity theory in its crude form is diametrically opposite---that the quantity of gold determines the movement of prices, not that prices determine the movement of gold. There is probably some truth in both views under differing circumstances. As between two different countries, the one where credit is expanding and business is active will tend to draw to itself from the existing stock such an amount of gold as is necessary for carrying on its transactions. In the gold-using world as a whole, however, change in the absolute quantity of gold in existence will enter into the many influences acting upon the average prices throughout the world (if such a world average is conceivable) with a tendency to raise those prices which are most sensitive if





there is a marked increase of gold and to depress them if there is a marked decrease of gold. The problem is so complex that it is doubtful if any amount of research would permit reducing it to a mathematical basis.

It is on the side of demand for gold that the greatest variations occur in its relation to the value of goods. The demand varies greatly with changes in conditions of credit.

I In a period of expanding credit, the demand is not primarily a demand for gold but for capital. Gold operates simply as the safety-valve, which is designed to insure not only a sufficient supply of the medium of exchange in daily transactions, but such a relation between prices of different commodities as shall at a certain point check over-production. It is when such over-production reaches the point that prices of goods fall seriously that gold serves a useful purpose as a standard. It is in such cases more a standard of relative values than of absolute values, because those articles which have been over-produced, fall in price, not simply in relation to gold, but in relation to articles for which there is a greater demand. Gold is the one article which is always in demand in all gold standard countries and which, therefore, acquires a peculiar value when other articles become less exchangeable. The manufacturer who is selling steel rails or cotton goods as fast as he can produce them finds them as good as money.



It is only when he finds that he cannot sell them at his usual profit that they cease to be valuable in his hands and he then turns to money as the one article whose value is unquestioned and which is always exchangeable for what he needs. Hence come the great fluctuations in the demand for money, which are much more important in affecting its exchange value than the slight annual changes in the new supply.

From these considerations emerges the conclusion that such mathematical relationship as exists between the quantity of gold and prices, is in actual transactions so obscured by other factors that it cannot be ascertained correctly or revealed conclusively, by tables or prices of commodities. When additions to the stock of metallic money are large and permanent they act finally, in some degree, upon prices: but this action cannot be measured by any rules of mathematics, and is often less potent than many other influences which affect commodities. It has already been shown that the elevation of prices cannot become uniform because the first effects of expanding credit resulting from an increase in bank reserves are felt upon those commodities whose prices are most sensitive and thereby cause a readjustment of the relations of demand and supply between other commodities, of which gold is only one. The true law governing the demand<sup>1</sup> for metallic money is well stated by Kinley:

"At any moment the value of the standard money is fixed by the interplay of competition between buyers and sellers

1. Kinley: Money, p. 146.



of gold: but it is a competition to buy and sell, not gold in general, but a definite amount, a definite supply. The demand is not for an amount sufficient to settle all exchanges, but sufficient only for the settlement of the balance of the exchanges. Now the same balance may represent very different total volumes of exchanges, at different times, on the same price level. That is to say, the demand for money for immediate payment may remain the same for very different volumes of business, or it may be larger, or smaller, for the same volume of business at different times."





THE GOLD STANDARD UNDER FIRE

The first part of this chapter is going to be concerned with: (1) the effect of gold payments by the bank of England on America, and (2) the "earmarking" by Federal Reserve Banks of \$180,000,000 in gold in foreign account in less than a week. Foreign central banks fearing a drain on their own resources, had sold large amounts of commercial bills in the New York market and put the proceeds in the Federal Reserve System, not as an ordinary deposit, but as actual "earmarked" gold which its owners could ship home at any time.

The easiest approach to an understanding to these confusing events is to regard gold as the means by which international payments are made, and not as a pile of metal lying in a bank which holders of the bank's circulating notes have a right to demand and hoard if they fear that the bank's notes may become no good. Gold no longer counts for much as money circulating from hand to hand. Paper has taken its place.

## I

It was the breakdown of international transactions, largely due to panic, that caused the trouble in September, 1931. In normal times, remittances of gold between countries are comparatively small, because (to state the matter in its simplest form) they represent only the difference in amount between goods and services purchased abroad and the outgoing and incoming items tend to balance one another. Exporters of goods have money due them in foreign countries. They draw bills of exchange covering these amounts and sell the bills



to importers who have payments to make in foreign countries so that one transaction offsets the other. When the supply of bills offered for sale is not sufficient to satisfy the demand, resulting in a rise in the prices of those bills, the central bank steps in and releases enough gold for export to make up for the deficit.

This is the procedure in normal times and the present times are not normal. In addition to the ordinary balances created by commercial transactions, foreign money has flowed in enormous amounts to Berlin, London, New York and to other centers for investment or merely as bank deposits in those markets. The foreign owners of these investments and deposits have recently demanded their money back, precisely as a bank depositor does when he doubts the solvency of his bank. A crisis in Vienna in May of 1931 produced a far greater crisis in Berlin in June and July and the Berlin crisis spreading to London resulted in the resounding crash of September 30, 1931 when the Bank of England confessed that it did not have enough gold in its vaults to meet the demand, and could, therefore, pay in gold no longer.

So much for the mechanics of the situation. The effects, present and future, are far more complex. Countries dealing largely with England selling and receiving payment for their goods in sterling and financing their foreign trade through their London banking connections are confronted with the problems whether they will continue their transactions on a sterling basis, in spite of the wild fluctuations



of the rate, or whether they will seek to do business in some other currency. The difficulty of making the shift and the probable loss involved explains the tendency of various countries to adhere to the British money unit.

<sup>1</sup> When the discussion arises, however, of substituting some other money for gold by a number of nations leaving France and the United States glutted with enormous stocks of "useless gold," it is time to examine the idea carefully. A great deal of the gold in New York and Paris is owned by foreigners. If the gold standard is abandoned by their countries, will they make us a present of the metal? What will the commercial nations use as "counters" or units of value, in settling their accounts with one another? Even a currency, like the British, which is off the gold base is still valued in terms of gold in the foreign markets.

There have been plans and proposals for "managed" currencies, divorced from gold and emitted by some central authority in amounts sufficient to meet commercial needs. Something of the kind now exists (usually without much real management, it is true) inside the boundaries of countries which use non-convertible paper or silver money. But as between nations there is no central authority to regulate the amount issued or to enforce its acceptance. The real difficulty, one is tempted to believe, lies not primarily with the standard itself, but with restraining people from creating more obligations than they can pay. This is the basic prob-





lem which any monetary system will have to deal with.

Credits, based upon the normal exchange of goods at fairly well stabilized prices become frozen when the specific commodities used as collateral shrank to but a fraction of their former price value. Debts that were contracted in good faith to procure a given quantity of wheat or cotton became heavy burdens when the value of the goods represented only fifty or sixty per cent of the credit used for its purchase. As prices fell precipitously, the liquidation of fixed dollar obligations required huge increases in the quantitative exchange of goods, but business contracted rather than expanded, and the credits supported by goods as collateral, rested upon a foundation that was weaker in inherent strength, and actually too small to support the superstructure it was intended to uphold.

Gold played a pernicious role in the tragedy, particularly international trade. With the Western World attempting to maintain a gold standard for the value of international exchanges, every contract between nations called for payment either in gold or in tremendously increased quantities of gold to be sold to the creditor nation. If, for example, English cotton manufacturers purchased raw materials or finished goods on a ninety-day loan of \$100,000 and if, between the time of purchasing of the raw materials and sale of finished products a general decline of 26% in prices occurred, the liquidation of the original loan required an increase of 26% in English exports.



<sup>1</sup>Only when a business depression is the direct result of a money problem will the correction of that money problem bring with it companionate improvement in trade. That was true in 1907. It is not so true now. Then the money system of the United States was unsound in principle and as inflexible as a steel column. The Aldrich-Vreeland act and the subsequent Federal Reserve System have removed most of the trouble inherent in 1907. Until the Spring of 1931 the problem of the present depression was one of trade. Since May, 1931, the debacle of the money and credit system both in Europe and America has imposed tremendous handicaps upon business. The process of deflation (or increasing value of money) developed so rapidly that commodities offered as collateral represented only a fraction of the original loans made. The lack of demand, combined with the tumbling of gold prices and products and the structure of the credit system, imposed its burden with telling force upon the business structure. <sup>2</sup>Unlike the conditions of 1907 those of 1931 came not from lack of money, but from the almost complete breakdown of the currency and credit mechanism in its relation to business. An improvement in money and credit would be of enormous assistance. In international affairs,

1. Current History: The gold Crisis Nov. p. 170

2. Ibid, p 172.



particularly, the over throw of the artificial barrier created by gold parity would be most salutary. In domestic business the correction of currency and credit would be of great value to solvency and stabilized prices, but a permanent constructive aid only if trade benefited from some stimulus. As a matter of fact, the improvement of trade would go far in the solution of the money and credit problem, whereas no such result would be inherent necessarily in the efforts to patch the credit machine or to inflate currency.

For America, the problem is one of more than passing interest. As a matter of fact the action of the British Parliament on September 21, contains as many elements of direct concern as though it were the act of official Washington itself. The threat of the loss of foreign markets and increased competition in American markets, which in spite of the tariff, may come through the depreciation of European exchange will promote wage reductions as part of a campaign to lower American costs to meet the emergency. That is the most obvious method and it is not unreasonable to assume that the wage reduction of 10 per cent announced by the United States Steel Corporation on September 22, 1931 one day after the gold edict was in part at least stimulated by the fear of increased British and other European competition.

1

There is another method by which America might seek to encompass the same result of maintaining her competitive position---by following the exact method used by England and abandon-  
1. Current History, The Gold Crisis, Nov. 1931, p. 171





ing the gold standard of exchange. Such a plan may seem fantastic in view of the gold supplies of this country; but the suggestion does not seem entirely far-fetched if the situation is examined somewhat more closely. It is a fact of economic history that cheap money always seeks exchange for more expensive money. If a substantial portion of the world should depart from a gold basis, there would be created a decided movement to exchange large sums of this fiat money for American gold. Moreover, with the increased attractiveness of the countries with depreciated currency as markets for world buyers, the actual exports of America might decline, imports increase and the adverse balance create a drain on the gold of the United States. This would be particularly true if American efforts to reduce costs through increased efficiency and wage reductions were not sufficiently successful or met increasing and effective resistance from labor.

There are many who measure the security and wealth of this country in the gold reserves within the vaults of the central banks. Serious inroads would unquestionably initiate some protective measures, and the obvious method would lie in the refusal to honor foreign drafts of gold.

There are other reasons for suggesting the possibility of America abandonment of a gold standard. The introduction of fiat money is one of the simplest devices for inflation, as its supply need have no such restrictive limits as that of gold. If the money value decreased, prices would



of course increase. Decreasing value of money is but another way of saying advancing prices of commodities. Security prices would increase, commodity prices would increase. The dual phenomenon would automatically enhance the value of collateral held by the banks and thereby reduce the threat to their solvency as well as that of many of the debtors. The dollar volume of the same quantity of business would automatically become greater and the fixed charges and labor costs would become less. Wage reductions, devaluation of bonded indebtedness and all fixed capital charges would be a fact without individual action or probably even adverse criticism. National bankruptcy would become a fact and creditors would be paid that percentage on the dollar---in real purchasing power---with the new value of money in relation to the old. In effect this series of events is what occurs during any period of rising prices except that if money were inflated there would not be necessarily any improvement in trade and when prices increase through active trade more labor is available and there are more products to be distributed.

<sup>1</sup>  
It would be far better if some stimulus to trade could be created and effected that would quicken the pulse of industry and bring back to America and the world, employment, profits and finally increased prices born of increased demand. The improvement of prices that comes with an increase



in business activity would mean the maintenance or even the improvement of standards of living. Industry would be in a more favorable position because it would be operating upon production schedules to which its mechanism was adjusted. Inflating prices through demonetization or devaluation of the dollar is tinged with the same fallacious social point of view that is inherent in the advocacy of horizontal reduction in production as a capitalistic method of correcting the depression. Both propose that the nation cut its cloth to a shrinking pattern. Both suggest lowering purchasing power for labor--not so enthusiastically--the contraction of capital structures to a small scale. Both are retrogressive, and both are necessary only when depression must be accepted as inevitable or is the normal mistakes of a competitive expanding industrial mechanism.





C O N S E Q U E N C E S   O F   B R I T I S H   D E C I S I O N  
O N   A M E R I C A

1

Those countries not on the gold standard will buy British goods, and each other's, in preference to American goods, because they have to pay less gold for them. American exporters, and export industries are already beginning to feel the effects in cancellation of orders. These advantages will last only so long as prices in Britain do not rise as fast as the value of the pound depreciates, or so long as prices in the gold holding countries do not fall as fast as the pound declines.

Since Soviet Russia has never been on a gold standard, she will switch her trade where possible to the countries that have abandoned it, except as she secures more liberal credit terms from the gold standard countries.

Third, further deflation of commodity prices in the countries still on a gold standard. This is seen already in American wheat and cotton markets, and may come in copper, depending upon how much Britain will rely upon the American supply. It is seen in rubber and tin also, since Holland, still on gold, controls so much of the supply. Hence it is problematical whether the Dutch will stick by gold and see their rubber plantations further ruined.

As the countries off gold buy their wheat, cotton, rubber, tin, and copper from other non-gold countries, or from their



colonies also off gold, the supplies of these commodities controlled by gold countries are backing up on the market and falling in price. This has been intensified by the instability of the exchanges and disorganization of the machinery of international payment, which will last as long as the pound is not established at some figure or until an international conference is called to repair the machinery of exchange.

Fourth, tightening of interest rates in all money markets. Foreign banks, unable to withdraw London balances without loss due to further depression of the pound are liquidating balances on short-term loans in other banking centers, chiefly New York, and accumulating gold to strengthen their reserves.

In addition central bank rediscount rates abroad have been sharply raised to cut down currency in circulation, force domestic liquidation, and attract foreign deposits.

In the United States the Federal Reserve System is being subjected not only to the strain of these foreign withdrawals, but to a persistently increasing internal hoarding demand for currency, and for reserve credit in the form of member bank borrowing to meet commercial and crop moving requirements.

The Federal Reserve System has met this multiple demand for funds in the New York market by taking bills given and by increased rediscounts and has so far only advanced its bill buying rate. If the demand continues it will be necessary to buy government securities to offset the tightening of the market, unless the rediscount rate is to be raised.



The outflow or earmarking of gold for foreign account in itself would be a good thing if it were offset by credit expansion here. But such redistribution of our gold hoard will probably be temporary, especially if interest rates rise here.

Although in August of 1931 imports of merchandise slightly exceeded exports, tourist expenditures, immigrant remittances, interest and dividend payments abroad and certainly foreign credits have all declined, so that the presence for inward movement of funds has increased. In addition, the flight of foreign capital here for safety is likely to grow, so that a continued inflow of gold is probable.

All this, taken in connection with the tidal wave of wage cuts, means further deflation in this country, as commodity prices decline, foreign trade is further hampered and credit becomes more costly and scarce.





A M E R I C A N   G O L D   S T A N D A R D   I M P R E G N A B L E

1.

"The man who helped a dozen nations back to monetary stability has told the United States that the American gold standard and dollar are virtually impregnable. So strong are they, said Dr. Edwin W. Kemmerer of Princeton University, in a speech before the Advertising Club, that the United States now has the opportunity of replacing London as the world's financial center."

In America, we have the largest supply of monetary gold of any country in the world, and the largest supply that any country has ever held in the history of the world. Until September, 1931, this stock has been increasing month by month with only an occasional slight interruption since the summer of 1928. We have recently lost seven hundred millions of this gold, but this amount is only about fourteen per cent of our September maximum holdings and merely puts us back to about the figure we had in January of 1931.

The gold reserves of our Federal Reserve Banks are still more than a billion dollars above legal reserve requirements and we have outstanding hundreds of millions of gold certificates for which we can easily substitute Federal Reserve notes thereby still further increasing the supply of freely available gold. We still have an excessive amount of gold, not because we reached out and grabbed it, but chiefly because

Boston Transcript Nov. 17, 1931.



so much has come to us for safe keeping. The difficulty at present is one of confidence. Much of our gold is still comparatively idle, but it will be put to work when people abroad and people at home come to believe it can be put to work safely and profitably.

The gold standard in the United States today is strong, very strong, and the fears entertained by some timid persons and by some ignorant persons at home, as well as the fears publicly expressed by some envious persons and by some ignorant persons abroad, of the possible breakdown of the American gold standard have no justification whatever in the cold facts of the situation.

There are few things more foolish than for anyone actually to hoard gold in a country with such a large gold supply as the United States and with such a strong credit position in relation to the rest of the world. The hoarding of paper money in the United States is likewise foolish. All of our paper money in addition to the other assets back of it, enjoys the guaranty of the United States Government itself, and our national government meets its obligations.

Hoarded money is always in danger of being stolen and it earns no interest. The proper place for small savings is in a bank, but in case there is no bank in a town, or in case for good reasons a person loses confidence in the accessible banks and has decided, therefore, to withdraw his deposits, he should not hoard the money withdrawn, but, rather, deposit it in his local postal savings bank and enjoy the absolute



guarantee of the United States Government itself.

Ever since the war New York has been gaining on London as a center for international finance. The shock given to the financial world by Great Britain's recent suspension of gold payments and the difficulty of carrying on international financial operations through the intermediation of a paper money standard will deprive London for a long time, if not permanently of her premier position as the world's money market center.

This position is now being offered New York. The United States has a well-organized banking system. In recent years, we have been engaging increasingly in the field of international finance, and we have many men, particularly young men, of training and experience in this field. The all-important question is: Have our bankers enough knowledge of international finance, enough experience, enough vision and enough financial leadership to take the position that London is now passing over to us? It is our opportunity and our responsibility.





## XII

### SUMMARY OF THE EFFECTS OF THE GOLD STANDARD UPON THE ECONOMIC DEVELOPMENT OF THE UNITED STATES.

The effects of the gold standard upon the economic development of the United States have been numerous and varied. I think that it is safe to say all of these effects have been of a beneficial nature and at the present writing I cannot see any reason why the gold standard should not continue to aid in the economic development of the United States.

It is because gold has been found, in the evolution of events, to be the best medium of deferred payments that contracts are made in gold rather than in other articles. Contracts for other commodities have usually been legal and have sometimes been made: but in the overwhelming majority of cases gold has been preferred, because it has remained the most exchangeable of commodities and its fluctuations in purchasing power have been to some extent calculable. Gold performs the function of deferred payments by providing a medium of payment that will assure the seller certainty as to the form of payment that will induce him to part with his goods; for no man will sell unless he feels certain of the purchasing power of that which he will receive in return. Gold is the standard of deferred payments on account of its unchanging character.

In examining the various projects which have been advanced from time to time for steadying the purchasing power



of gold, it becomes clear that there is much conflict of opinion over even the definitions which describe the character of the changes. It is often declared that gold has appreciated in value when a given amount of gold will purchase a larger amount of commodities than before. In a restricted sense, this definition of the "appreciation of gold" is correct. When gold will exchange for more commodities than on some previous occasion, it has undoubtedly appreciated with reference to those commodities. But an appreciation of gold with reference to those commodities may be due to causes having no direct relation to gold, but related to the production or stock of commodities. If a given commodity has been produced beyond the limits of effective demand, so that there is a surplus stock on the market, its price falls in gold, and it may be said in a sense that gold has appreciated with reference to this particular commodity; but the real cause of the change is obviously not found in the production of gold or anything directly affecting that metal, but in influences affecting the commodity which is measured in gold.

One of the most important functions of gold and the gold standard is the way in which it operates on deferred payments. Gold performs the function of deferred payments by providing a medium of payment that will assure to the seller certainty as to the form of payment that will induce him to part with his goods: for no man will sell



unless he feels certain of the purchasing power of that which he will receive in return. Thus, we can see how the gold standard is encouraging trade and credit by stabilizing them because of its unquestionable stability of value. No business can go on unless there is absolute confidence on the part of both the seller and buyer in regard to the method and kind of payment. Since the gold standard furnishes business with this necessary incentive, it certainly is performing a most important economic service. Gold is the standard of deferred payments on account of its unchanging character.

So much has been said about the purchasing power of money that we cannot mention our money system without thinking about its purchasing power. I think that the buying power of money is going to fluctuate regardless of what standard of money we are on. I also think that the fluctuations are going to be minimized in any country that conducts its money scheme on the gold standard. Gold is subject to fewer changes in purchasing power than any other substance since the quantity does not fluctuate violently. Therefore, the United States since it is on the gold standard, is going to have a fairly stable purchasing power, which in turn will aid in stabilizing business. The wealth value of purchasing power of gold is determined mainly by the demand for it for monetary purposes. The industrial demand takes quite a secondary and subordinate place.





The refunding of bonds is sometimes measured by the amount of gold reserves within the vaults of the central banks. Of course, this is not the only measurement by which we estimate the refunding of bonds, but nevertheless it is a most important factor when we talk about refunding bonds. The fact that we are on the gold standard gives people confidence to buy bonds, and if they did not have a feeling of security when buying, there would unquestionably be serious inroads initiated for some protective measures. It would be rather difficult to refund long-term bonds if the value of gold fluctuated too frequently and too broadly. If we had a money that kept decreasing, it would be another way of saying that bond prices would increase. This would enhance the value of the collateral held for the bonds and thereby reduce the solvency of many debtors. This in turn would mean that fixed charges would become less and there would be a devaluation of bonded indebtedness. Fixed charges would be a fact without individual action or probably even adverse criticism. All of these things would hurt the refunding of bonds. Creditors would only be paid that percentage on the dollar in real purchasing power with the new value of money in relation to the old. But, with a fairly stable gold standard the danger of not refunding bonds dollar for dollar is greatly minimized.

Although there are many contributing causes for the increases in National Banks, I think the gold standard has been a most important factor in their phenomenal growth. It is true that before we went on the gold standard, the



United States had many National Banks, and they probably would have been a great many even if we were not using gold as our basic money. But, the feeling of security which comes with the use of gold as money, has given bankers and government officials the courage and confidence to extend their growth throughout the entire United States. The National Banks have increased also because there has been, and still is, less danger of bank failure due to the well known inherent qualities of gold. The value of gold has remained relatively constant; there have been no conflicting double standards and there has been no serious danger of large fluctuations in the amount of gold in this country. All of these things have come about partly as a result of our gold standard, and, because these things are all economically sound, they have helped to increase the number of National Banks in the United States: and the banks in turn have helped to increase the economic activity of the American people.

The increased capitalization of any bank may be due to a number of causes, but it is a certainty that no bank is going to keep its increased capitalization unless the money system of the country which it is operating on is sound. The gold standard of the United States is a sound money system and it has been a most important contributing factor in the growth of capital in our National Banks. If our use of gold as money could not stand the attacks of the rules of economics we could not hope to have much of an industrial country.



If we did not have an industrial nation, we would not have large amounts of capital. But, the very fact, that our gold standard is economically sound, American business men have had the faith and courage to go ahead and build up a commercial nation, as well as an industrial nation. Extra capital has been one of their foremost thoughts and it has driven them on to such an extent that they gained more money than could profitably be used. Much of this money that could not economically be used has gone into National Banks. This money, first of all, only increased the deposits of the various National Banks. But, as this money was later wisely used by them, profits resulting from the increased deposits went toward increased capitalization. The banks probably would never have had this capitalization if the United States was not on a gold standard because our business enterprises would never have been able to flourish, as they have, on a weak money system. Therefore, while it is true that the gold standard was an indirect cause for the increased capitalization of our National Banks, it is also true that the direct causes for their increased capitalization would never have been so apparent if we were on a standard less sound than gold.

When we speak of gold in terms of foreign countries, international trade, and international payments, we invariably think of the rate of exchange. There are many countries other than the United States who are on a gold standard but who use different measurements in deciding the value of gold.





Consequently we must have some method of determining the value of one country's coins to another. We, therefore, have established what is commonly known as a rate of exchange. By being on a gold standard, a country will find that the normal rate of exchange is both invariable and definitely calculable without the aid of index numbers. The rate of exchange is definitely calculable because of the stability of gold. It is not constantly fluctuating either in the amount of it or in the value of it, and these things make it possible to figure what the rate of exchange will be in the future. The value of such a thing as this is at once apparent. Merchants can foresee a possible rise or fall in prices and can protect themselves with this knowledge. A definite calculation of the rate of exchange also aids in stabilizing business because it acts as a check or a guide for future transactions. The possible variations from the normal rate are themselves capable of being predicted and expressed in definite terms.

Historically, it is the relative fixity of the exchanges under a gold standard which has furnished the main incentive for numerous countries to establish or restore the gold standard. If the gold standard was not sound in itself, we could never had a historical fixity of the exchanges. If the fixity of exchanges are so important that they furnish a country with an incentive to establish or restore a gold standard, then we cannot help but recognize how important gold is to any



country in the world regardless of whether or not it is on the gold standard. We would not have the fixity of the exchanges if we did not have gold, and we probably would not have so much stability of international trade if we did not have the fixity of the exchanges. But, the majority of our fixities and stabilities go back to our gold standard---we probably would not have them if we were on any other standard.

The gold standard in itself is not a direct cause for increases in bank deposits but it certainly is an important contributing factor. It is true that bank deposits may be increased or decreased due to a variety of economic happenings, but, I believe that the use of gold as money has been a factor of considerable importance in creating large deposits. People deposit money in banks because they are convinced that banks are relatively safe, but people would not make these deposits if they thought the banks could lower the value of their money. People deposit money in the banks because of the interest they receive on it. Again they would not leave their money in a bank if the gold value was going to be lowered because of the interest they receive on their deposits. In other words, the gold standard has helped to increase bank deposits because the people feel that the banks cannot, to any serious extent, alter the value of their money. The gold standard has put trustfulness and confidence in the people to such an extent that they put their money in banks, and the banks in turn use these deposits for loan purposes



which go a long way in aiding the economic development of the United States.

Since our money standard is based upon gold, I think it is safe to say that the amount of money in circulation in the United States is partly due to the gold standard. I say partly because I am aware of the fact that notes and bonds have increased the amount of funds in this country to an almost unbelievable sum. With each new discovery of gold, the amount of money in circulation will naturally increase. It is also true that if we were on silver standard, each new discovery of silver would increase the amount of money in a country. But, it would be necessary to discover sixteen times as much silver as gold, to cause the same increase in the amount of money in a country. Therefore, since the United States is on a gold standard, it is easy to see that each new small discovery of gold will increase the amount of gold money in circulation even though the gold may be discovered abroad. This is so because the majority of foreign countries are debtors to the United States which means they must pay us in gold if they do not pay us in commodities. This increase of money helps to develop us both economically and governmentally. The gold standard increases the amount of money in circulation since it has greater value than any other metal; and with each increase in the circulation of money we grow economically because we have more money with which to expand. The gold standard also increased the amount of money in circulation because





of its stable value. People usually do not hoard because they have been assured that the value of gold does not fluctuate enough to make hoarding necessary. They probably put their extra money in banks and the banks in turn send it out for further circulation.

The value of gold in relation to other articles is reflected by prices. Price is a relationship between the exchangeable value of an object at any given time and the exchangeable value at the same time of the metal of which money is composed. The relation between gold and other commodities is constantly changing, as are the relations of these other commodities to each other. There is almost constantly a slight misdirection of production, which, from day to day, creates a little more of one commodity, or a little less of another, than is demanded at current prices. The influence of this over-production or scant supply corrects itself through changes in prices, but those changes occur before the remedy is effectively applied. These prices are the test of the demand for products and not a test for the demand of gold. It is contended by those who seek for an ideal money that their aim is not to eliminate fluctuations in prices which arise from changes in commodities, but to eliminate the fluctuations which grow out of the character of gold as merchandise and out of the irregularity of its production. It is very difficult to separate, in either theory or practice, the one class of fluctuations from the other. While it is true that the productions have been irregular, its irregularities



are not near so numerous as are variations in other commodities. Since its inception as a money in this country gold has maintained a fairly steady price scale and has helped other products to stay on one price scale. When people talk about price changes and blame them on to gold they are mistaken; they mean price changes in the commodities which gold will buy. While undoubtedly there has been a gradual change in the relation of gold to commodities as a whole, extending over long periods of time, the change has not been radical enough to cause any serious injury to our money standard.

Our Federal Reserve System and the use of gold as a money standard have been closely linked together since the beginning of the Federal Reserve System. While it may be true that we would have had a system of reserve banks even if we were not on a gold standard, I think the adoption of gold as a standard in this country has helped the development of our reserve system to a large extent. First of all, it has given the people who formed this system something definite on which to base the requirements for bonds, deposits, capital, interest rates, rediscount rates, loans, notes, and reserves. Gold has also partly determined the growth of these banks. These banks cannot form or grow without a certain amount of gold. In other words, the gold standard helps to decide when or when not a Federal Reserve Bank may be found. By aiding or hindering in a decision of this kind, the gold standard makes itself an important factor in the policies of our



government and our businesses because the Federal Reserve System is the most important arrangement of banks in the United States.

The gold standard in the United States has been of considerable help in the expansion of credit and currency. The increased supply of monetary gold has created vast potentialities of currency and deposit credit expansion of which the country has availed itself largely to buy bonds. As the increased supplies of gold have come here, we have grown richer. As we have grown richer, our credit and currency has grown stronger and as we have grown stronger, our credit and currency has expanded because of their strength. Bank credit and currency expands when transitions are to be accomplished. An enormous volume of bank credit has been required to finance the shifting of industry from peace occupations to war occupations, to finance the huge receipts and disbursements of the treasury, to ease the tension of tax payments, to enable business men to liquidate slow assets while changing the character of their production and meeting the burden of taxes and loans. Expansion of bank credit is necessitated by the hoarding of deposits by business men who feel the necessity of keeping in an unusually liquid position in times of stress and uncertainty. It is certain, that gold, by aiding credit and currency expansion, has done its part with doing away with demoralization and chaos. The gold standard itself economizes use of gold by employing bank credit as a substitute.





Wages and labor have also received the benefits of the gold standard in the United States because it has given us something definite to measure wages with. It has also helped both the employer and the employee to estimate what their worth is to each other. It has aided in stabilizing wages because of the stable quality of gold. The wage earning class can realize the cost of living in terms of gold and then can seek a wage according to it. By the gold standard raising our standard of living, it has in turn raised the wages of the majority of the workers who are on a wage scale. With the resultant rise in wages, the workers are able to save more money and to spend more money: and these things in turn aid in the economic development of this country. Gold has helped to give labor the quality of stability that it will always need. No country which lacks a definite money standard can hope to have satisfactory labor. Labor must be based upon something definite in the line of money, and the gold standard in this country is the basis. If labor was not satisfied with this standard, or if we had a standard of money which held the laboring class down too much, we would never have been able to accomplish all that we have. Labor is a most important cog in economics and if our labor is not economically sound we cannot hope for much progress. The use of gold has aided in giving labor a soundness and stability that has withstood industrial revolutions, wars, and changing standards of living.

Almost everyone who talks about the gold standard talks about its stability. Stability is one of the chief identifi-



cation characteristics of gold. In spite of our fairly frequent business cycles, and regardless of money inflations and depreciations, the value of gold has remained very stable. It has withstood the onslaught of wars and commodity price fluctuations in a manner which has proved beyond any question of doubt that gold always keeps its unflinching stability. While prices of commodities have gone up or down according to demand and supply, or according to over-production or under-production, the price of gold has kept itself maintained on a steady level. Many people confuse the stability of gold with commodity prices. Some of them think that because there has been a rise or drop in the cost of materials which make up our economic world, that the stability of gold is not so apparent. This is not true. It is the value of these commodities that is fluctuating and not the value of gold. The stability of gold helps to maintain a steady price level because of its almost perfect unvarying value; it helps to keep purchasing power on a definite stand; and it gives people confidence in the gold standard because they know their dollar is not going to change too much in value over-night. The gold standard tries to insure stability by tying the value of money to gold.

Gold has placed American business on a firmer economic standing than is probably imaginable. It has given business men and the government the courage to go ahead with almost any financial enterprise that has sounded economic. For one thing business has been given something definite on which



to decide the value of anything. By giving stability to money, gold has given stability to business because money is probably the most important factor in any business enterprise. The capitalists are able to calculate in advance the rate of exchange and thus plan his future transactions accordingly. The gold standard has also helped the commercial undertakings of America in the following indirect ways: By aiding banks, by financing international trade, by granting credit, by loaning money and by keeping prices stable.

Gold has served as a medium of exchange for international payments for such a long time and has served its purpose so well that there is no question of doubt as to its economic value, not only to the United States, but to foreign countries as well. The settlement of international payments by gold has given the United States something definite on which to figure what is owed to her by debtor countries and what she owes to creditor countries. By making and receiving payments in gold, we are enabled to save time and money because of the fact that we are on the gold standard. Settling international payments by gold also makes it possible to figure balances far in advance of when they are due, and thus the business man has the opportunity to plan his future foreign trade accordingly. Settling payments by gold is an invaluable method to governments. It helps them to plan their budgets, taxes, receipts and disbursements since they know definitely what is due them from foreign countries and what they owe to creditor nations. Large values in gold are

The first part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present. The author then proceeds to a detailed examination of the various factors which have shaped the development of the United States. These factors include the influence of the European settlers, the role of the Native Americans, and the impact of the American Revolution. The author also discusses the role of the federal government in the development of the country, and the importance of the Constitution. The paper concludes by emphasizing the need for a continued study of the history of the United States, and the importance of preserving the values and principles which have shaped the nation.



also transportable in small bulk. This is a true economic advantage because it reduces expense and saves space.

Our gold standard has been one of the prime factors in our international trade. It has been a prime factor in our international trade because it is the basis upon which we buy and sell with foreign countries. Without something definite to figure prices on, international trade would almost be an impossibility. Gold, because of its definite value, facilitates the growth and expansion of international trade, by allowing foreign trade merchants to make long term agreements without being hampered by the thought of two different money standards. Gold is also of especial importance to the United States in international trade because we export more goods than we import, which means we receive more gold than we pay out. The resultant flow of gold into this country makes us a richer nation and gives us surplus money with which to carry on any governmental or industrial expansion which may be necessary. Gold also helps us in foreign trade since our banking facilities are based upon a gold standard.

The use of gold as a medium of exchange has helped to lower interest rates and has aided in keeping them at a stable level. By creating a credit and currency expansion, the gold standard has put considerably more money in this country than would normally be here. Thus, if money is plentiful as it is in the United States, interest rates are going to be low



if the supply is greater than the demand. If the amount of money in circulation does not vary, there is no normal reason why the interest rate should vary. Thus, by interest rates remaining low and stable, it encourages people to use more money, and if this interest charged money is used to good advantage, then the entire nation is going to benefit from it. Usually, the things which hold true for interest rates also hold true for rediscount rates.

Gold is essentially a standard of relative values rather than absolute values. As such it forms as perfect a measure as is practically attainable because it is not subject to large and sudden variations on the side of supply. The variations on the side of demand are the reflection of changes in the production and consumption of other commodities and are in their essence one of the regulating forces of production. When this character of gold as a standard of relative values rather than absolute values is frankly recognized, it ceases to be necessary to attribute fluctuations in the value of commodities to changes inherent in gold itself. Imperfect as a gold currency may be in theory, subject to accidental fluctuations in the production of the metal and changes in the relations between the quantity of money and the volume of transactions, it is probable that it secures more perfect justice in its actual operation than would any other substitute system.









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Note to be taken from the library.

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